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ABSTRACT

In responding to the emerging challenges to education in Asia and the Pacific in this new century, this Asia-Pacific Programme of Educational Innovation for Development (APEID) book series, "Educational Innovation for Development," is launched to reflect a knowledge base of rethinking on roles of education in development. The series intends to disseminate innovative practices in undertaking education reforms on a local and systemwide basis. This book uses information from the Innodata databank of educational innovations. Based on 42 Innodata entries supplied by countries in the Asia-Pacific region from 1996-99. Projects from 14 countries are included in the book. Some of the projects have completed their work while others are at various stages of implementation. The innovations reported involve some form of curriculum or materials development and pre- or in-service teacher training. Section A contains two chapters: (1) "The 'Building Blocks' of Educational Innovation for Development in Asia-Pacific" (Philip Bergstrom); and (2) "Context and Strategies for Educational Innovation for Sustainable Development in Asia-Pacific" (John Dewar Wilson). Section B lists and discusses projects by country: Australia; Bangladesh; Cambodia; China; India; Laos; Malaysia; Maldives; Myanmar; Nepal; New Zealand; Pakistan; Philippines; and Thailand. (BT)

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Snapshots of Primary and Secondary Education in Asia-Pacific. Educational Innovation for Development 1

John Dewar Wilson

United Nations Educational, Scientific, and Cultural Organization, Bangkok (Thailand). Principal Regional Office for Asia and the Pacific.

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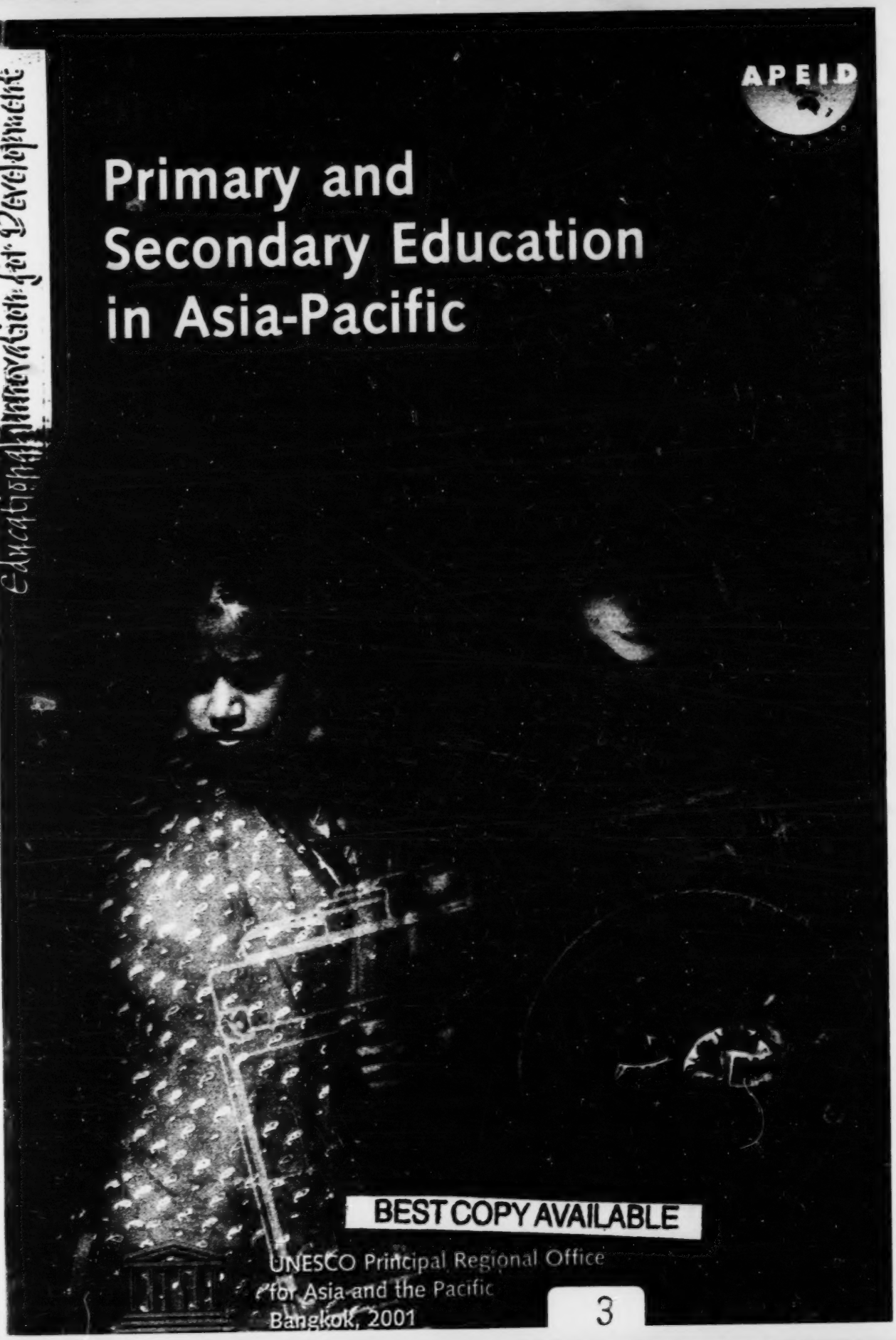
Educational Innovation for Development

APEID

Primary and Secondary Education in Asia-Pacific



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Bangkok, 2001

Mission Statement

for the **Asia-Pacific Programme of Educational Innovation for Development (APEID)**

The fundamental mission of APEID and its Secretariat, the Asia-Pacific Centre of Educational Innovation for Development (ACEID), as part of the UNESCO Principal Regional Office which serves over 40 Member States in Asia and the Pacific, is:

to contribute to sustainable human development (underpinned by tolerance, human rights and a culture of peace) through the design and implementation of education programmes and projects, mainly at the post primary level of education, which stress ***educational innovation for development***.

Snapshots of Primary and Secondary Education in Asia-Pacific

Prepared by
John Dewar Wilson

UNESCO Principal Regional Office
for Asia and the Pacific
Bangkok, 2001

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PREFACE

In responding to the manifold emerging challenges to education in Asia and the Pacific in the new century, this APEID book series, **Educational Innovation for Development,** is launched to reflect a rich base of knowledge out of rethinking on roles of education in development. This series is also a means to disseminate innovative practices in undertaking education reforms on a local and system-wide basis.

APEID (Asia-Pacific Programme of Educational Innovation for Development) is a regional co-operative programme inspired by collective commitment of Member States to national socio-economic development, and based on reciprocity for mutual learning and self-reliance.

The objective of APEID is to contribute to strengthening national capacities for undertaking educational innovations to enhance the contribution of education to lifelong learning and human development, defined by the Member States in the context of their own socio-economic and cultural systems. It seeks to give expression to the evolving idea of development as an overall, multi-dimensional and diversified process, essentially endogenous in nature, linked with the values peculiar to each society, and requiring active participation of organizations, institutions and individuals who are its agents and beneficiaries on a lifelong basis.

'Innovation' is more a social, economic and cultural term than a technical one. It is purposeful, creative, organized acts that endow resources with a new capacity to create new wealth, the means by which changes are exploited as an opportunity for new resources or different services. Innovation is capable of being learned, practised and replicated. Educational innovation refers to ideas or practices new to a specific educational context that meet unsatisfied needs. In this sense, educational reform is also an innovation, but one that brings about fundamental and pervasive system-wise transformations.

Over the nearly three decades since APEID was launched through the UNESCO General Conference, the contexts and content of development, which educational innovations should serve and aim at, have profoundly changed. Roles of education have been much expanded to function as a driving force of sustainable development, a tool of empowerment of people, a corner stone of a culture of peace, and a fundamental means to the full flowering of human potential toward a learning society.

APEID is a co-operative programme of the Member States, by the Member States, and for the Member States, in jointly facilitating, undertaking, disseminating and replicating development-oriented educational innovations. APEID is significant as much for what it does as for the way it works. It encourages various innovations which cover educational policies, strategies, structures, contents, methods and technologies and which are conducive to development. APEID seeks to strike roots in the region in an unusual fashion. Organizationally, APEID has evolved into a 'network of networks', including Associated Centres, ASPnet, UNEVOC centres and UNITWIN/Chair programmes functioning in the region, and APNIEVE (Asia-Pacific Network of International Education and Values Education).

It is through these networks and their member institutions that most dynamic educational innovations have been initiated and implemented in APEID member countries to respond to development challenges at both local and global levels.

In the coming Medium-Term Strategy years (2002-2007) UNESCO, in fulfilling its mission of 'contributing to peace and human development in an era of globalization through education, science, culture and communication', will continue to promote educational innovation, experimentation and sharing best practices. It is the very purpose of this APEID series to encourage innovative reflections on education in the changed/changing development contexts, and to record and diffuse successful educational innovations made by governmental and non-governmental organizations and civic societies in the Member States.

As the essence and test of an educational innovation lies not in its technical novelty, but in its relevance to development and success, we hope, and believe, that the innovations reflected in this new series will bear fruit in the Member States in the new century.

Zhou Nanzhao
Acting Chief of ACEID
UNESCO PROAP

August 2001

List of Abbreviations

ACEID	Asia-Pacific Centre of Educational Innovation for Development
ADB	Asian Development Bank
AEC	Atoll Education Centre
APEID	Asia-Pacific Programme of Educational Innovation for Development
APNIEVE	Asia-Pacific Network for International and Values Education
APPEAL	Asia-Pacific Programme of Education for All
ASPnet	Associated Schools Project network
AusAID	Australian Agency for International Development
BA	Bachelor of Arts
BEd	Bachelor of Education
BEE	Bureau of Elementary Education
BSE	Bureau of Secondary Education
CANEP	Cambodia-Australia National Examination Project
CDC	Curriculum Development Centre
CLC	Community Learning Centre
CONSTEL	Continuing Science Education for Teachers via Television
CRDC	Curriculum Research and Development Centre
DECS	Department of Education, Culture and Sports
DETYA	Department of Education, Training and Youth Affairs (Australia)
DIET	District Level Institutes of Education and Training
DNA	Deoxyribo Nucleic Acid
DSD	Directorate of Staff Development
EASE	Effective and Affordable Secondary Education
EDO	External Delivery Option
GDP	Gross Domestic Product
GNP	Gross National Product
GOB	Government of Bangladesh
HSEP	Higher Secondary Education Project
IBE	International Bureau of Education
IBM	International Business Machines
ID	Identification
ISMED	Institute for Science and Mathematics Education
IT	Information Technology

MSC	Multimedia Super Corridor
MSCERT	Maharashtra State Council of Educational Research and Training
NEC	New Economic Mechanism
NGO	Non-Government Organization
NIER	National Institute for Educational Research, Japan
NPO	Not-for-Profit Organization
PMSP	Punjab Middle Schooling Project
PROAP	Principal Regional Office for Asia and the Pacific
PSU	Programme Support Unit
PTA	Parent Teacher Association
PTN	People's Television Network
ROEAP	Regional Office for Education in Asia and the Pacific
SMART-PT	State-wide Massive and Rigorous Training for Primary Teachers
SMEMDP	Science and Mathematics Education Manpower Development Project
SSC	Senior Secondary Certificates
STC	Subject Teacher Committees
TAO	Tambon Administrative Organization
TED	Technical Education Department
TSD-MCP	Thinking Skills Development for Maximised Cognitive Performance Programme
TRC	Teachers Resource Centre
UK	United Kingdom
UNCAP	United Nations Collaborative Action Plan
UNDP	United Nations Development Agency
UNESCO	United Nations Education, Scientific and Cultural Organization
UNEVOC	UNESCO Centre for International Project on Technical and Vocational Education
UNICEF	United Nations International Children's Emergency Fund
UNITWIN	UNESCO Programme for Fostering International Cooperation between Higher Education Institutions by Twinning Programmes and Networking
USAID	United States Assistance for International Development
USSR	Union of Socialist Soviet Republics
VEC	Village Education Committee
WB	World Bank

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Introduction

Innodata is a databank on educational innovations compiled, since 1993, by UNESCO's International Bureau of Education (IBE), Geneva, and accessible at: http://www.ibe.unesco.org/Inf_Doc/Innodata/inno.htm.

The focus of the database is on descriptions of educational innovations in primary and secondary schools within the IBE's priority area: the content of education. Some initiatives in teacher training and in non-formal education are also included. Innodata adopts a broad definition of the term 'educational innovation', the emphasis being upon 'initiatives that are new within a specific sub-regional, national, local, or institutional context, even if familiar in other settings'.

'This publication is the first in a new series entitled **Educational Innovation for Development**, produced by ACEID, to reflect the very wide range of imaginative initiatives that are currently being pursued in APEID Member States by Ministries of Education, international funding agencies, institutions and individuals to meet the range of needs. The series aims to provide accessible, up-to-date information that will be of interest to all who are active in education in the Asia Pacific region and around the world'.

'Snapshots' is based on forty-two Innodata entries supplied by countries in the Asia-Pacific region over the years 1996-99. The projects included in 'Snapshots' were, in most cases, supplied on the standard Innodata proforma as a report to the Asia-Pacific Centre of Educational Innovation for Development (ACEID). In some cases these data have been supplemented by information supplied through papers to the annual UNESCO-ACEID international conference, or through publications supplied by projects. These information sources have been transformed into the present 'snapshots' to extend accessibility for readers. Each entry includes a statement that contextualizes the need for the innovation, based on a suitable analysis. The nature of the innovation is described, along with an account of its implementation and achievements, time-scale and factors affecting its success. Sustainability issues are identified. Information on publications and contact details of key personnel is also provided.

Projects from 14 countries are included. Some of the projects have completed their work while others are at various stages of implementation. The innovations reported invariably involve some form of curriculum or materials development and pre- or in-service teacher training. They comprise a diverse range of topics from the development of school-community relationships to provide basic education for under-privileged groups, such as girls, slum dwellers and ethnic minorities, to curriculum development initiatives that aim to develop textbooks and other teaching resources, to pedagogical innovations to facilitate access to difficult concepts in science, and to promote thinking skills while realizing the vision of individualized learning supported by information technology.

Two introductory chapters provide a context for the 'snapshots'. Philip Bergstrom has provided a history of the development of cooperation for educational innovation between countries in the Asia-Pacific region, supported by UNESCO, leading up to the establishment of ACEID in 1973. John Dewar Wilson describes the range of developmental contexts in the countries in this diverse region, and the strategies through which educational innovation for sustainable development may be, and is being promoted, as illustrated in this publication.

I should like to thank those who have submitted information for the database, and to encourage those who have innovations to report to do so via ACEID, so that the range of interesting work being pursued across the region may be documented and disseminated.

I also wish to thank Dr Rupert Maclean, former Chief of ACEID, for inviting me to undertake this task, and Dr Zhou Nanzhao, current Acting Chief of ACEID, for backing this project. Mr Mike Lally, consultant to ACEID, compiled many of the original Innodata entries on which this publication is based.

John Dewar Wilson
Bangkok

August 2001

SECTION A

Chapter One

The 'building blocks' of educational innovation for development in Asia-Pacific

Philip Bergstrom

Chapter Two

Context and strategies for educatoinal innovation for sustainable development in Asia-Pacific

John Dewar Wilson

Chapter One

THE 'BUILDING BLOCKS' OF EDUCATIONAL INNOVATION FOR DEVELOPMENT IN ASIA-PACIFIC[1]

Philip Bergstrom

Introduction

The beginning of the new century provides an appropriate moment to pause and reflect upon the genesis and evolution of UNESCO's efforts towards educational innovation for development in Asia-Pacific. Before considering the 'snapshots' on innovation in this volume, it may be instructive to consider for a moment the 'building blocks' upon which these new initiatives have been established. While individual countries in the region began pursuing educational innovations internally as soon as they gained their independence, the 1950s saw the roots of UNESCO's Regional Institute Model for educational development. That effort continued through the next decade until, in 1973, the Asia-Pacific Programme of Educational Innovation for Development (APEID) was established. ACEID, the Asia-Pacific Centre of Educational Innovation for Development, serves as Secretariat to APEID. Since its inception, the APEID/ACEID network has been at the vortex of educational change in Asia-Pacific. This paper will offer a brief review of the most significant events that led to the establishment of the APEID/ACEID network.

To alleviate any confusion over these names, APEID is the network; ACEID is the Secretariat. APEID is not an institution; it is not a place. It is a system of co-operative linkages between educational institutions, called Associated Centres[2], within and between the countries of the Asia-Pacific region. Institutions belonging to the APEID network usually apply directly to ACEID through their National Commissions for UNESCO. ACEID then accepts their application on the basis of their

1. Portions of this chapter have been published elsewhere.

2. At the time of this writing, ACEID is undertaking a programme aimed at revitalizing the 198 current Associated Centres, maintaining those who are interested in active participation, and assessing new applications for admission. This also involves consideration of new applications from UNESCO Member States who are interested in joining the, now, twenty-eight countries in the region who are current members of ACEID.

ability to make a regional contribution to educational innovation for development. The underlying assumption of the network is that every Associated Centre in every Member State has something to offer to others in the network, at the same time they stand ready to accept collaborative assistance when it is offered. As opposed to the old donor/recipient model whereby some countries are nearly always 'givers' and others nearly always 'receivers', this is a model of co-equals where everyone is a giver and receiver at once.

ACEID, on the other hand, is a place. It is an office run by professional and administrative support personnel whose work is to disseminate information throughout the region, provide technical assistance when invited to do so, and facilitate the linkages in the APEID network by sponsoring and organizing seminars, conferences, meetings, and training workshops[3].

Context

After the Second World War, as countries in the region gained their independence, leaders in all fields began to thrill at the long awaited opportunity to help their countries forge their own destinies and improve the lives of their people. In 1952, UNESCO brought a group of prominent educationists together in Bombay, India, to begin discussing the idea of regional co-operation. Their specific concern at that meeting was the promotion of free and compulsory primary education. Perhaps the most important outcome was consensus that education was the best vehicle through which to promote a sense of an 'Asian'[4] identity, and to foster a spirit of co-operation. It is important to remember that throughout the colonial period many countries were artificially isolated and/or antagonistic towards each other, reflecting the views of their colonial rulers. Thus, there really was no sense of an 'Asian' identity from which to develop regional co-operation.

---

3. Over the years ACEID's role has expanded beyond its service to APEID. It now serves several additional regional networks: APNIEVE (Asia-Pacific Network for International and Values Education), and the new Partner Institute Network. Further, ACEID provides service to the United Nations international networks, UNEVOC and UNITWIN.

4. Originally, the Regional Office was established to serve the Asian region. Hence, the early documents for the Regional Office always refer to "Asia" and "Asian". Later, after the region was expanded to include countries of the Pacific as well, the office in Bangkok became the Principal Regional Office for Asia and the Pacific (PROAP).

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Karachi Plan

In 1958, UNESCO's 10th General Conference passed a resolution calling for "preliminary studies in 1959-1960 with a view to initiating a Major Project on the extension of compulsory primary education in Asian countries" (UNESCO, 1958, 10 C/Resolutions, Annex I, para. 53). The report of that study was delivered to participants prior to the Regional Meeting of Representatives of Asian Member States on Primary and Compulsory Education held in Karachi, Pakistan, 28 December 1959 to 9 January 1960. This meeting gave birth to the first comprehensive regional co-operative effort in promoting universal primary education throughout Asia: what became known as the Karachi Plan.

Representatives of the Member States[5] meeting in Karachi were first presented with a litany of facts and figures as to the sad state of education in each of their countries. Ananda Guruge, then a young educationist from Sri Lanka, recalled that "the figures seemed to say everything...they explained our poverty, our backwardness, and our shameful complacence" (Guruge, 1986, p. TWO/20). He goes on to tell how Malcolm Adiseshiah, then Assistant Director-General of UNESCO, and a man of charisma, rose to pull the delegates back to a more optimistic vision of the new world before them - a world that could and would be theirs for the making.

In the end, the Karachi Plan called for no less than the "provision of universal, compulsory and free primary education in Asia" (UNESCO, 1960, p. 31). Furthermore, the representatives agreed that these goals for the first seven years of schooling were to be achieved in just twenty years i.e. by 1980! The enthusiasm of independence seemed to engender the belief that anything was possible. Even though today, *forty* years later, the goal of universal primary education is still elusive, the great significance of the Karachi Plan is that the commitment had been made. As Acting Director-General of UNESCO Rene Maheu later remarked, "The Karachi Conference...marks an epoch in the history of UNESCO (sic). Indeed, for the first time, educators at the highest level in their respective countries made joint proposals to the governments of a vast region; proposals definite both in quantity and quality, [to be] realized within a definite time limit" (UNESCO, 1962, p. 45).

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5. The countries represented at Karachi included Afghanistan, Burma, Cambodia, Ceylon, China (Nationalist Republic), India, Indonesia, Iran, Japan, Korea, Laos, Malaya, Nepal, Pakistan, Philippines, and Thailand.

The Karachi Plan proposed that regional institutes be established to train key educators as a means of building national capacities. Indeed, the hallmark of educational development in the 1960s was capacity building, and this became a foundation stone of educational innovation for development in the region. Specifically, the Karachi Plan called for the establishment of three Regional Institutes: one for planning and administration in New Delhi, India; one for training teacher educators in Quezon City, Philippines; and one for school building research, originally located in Bandung, Indonesia and later moved to Colombo, Sri Lanka. The Institutes were to be co-ordinated by a regional office in Bangkok. The idea was for these three to operate under the UNESCO banner for a ten-year period and then be taken over by their respective national governments.

Shortly after the meeting in Karachi, in 1961, a prominent Pakistani educator, Dr A.F.M.K. Rahman was given the job of starting up the regional office for UNESCO in Bangkok, Thailand. In just eighteen months of tireless effort and thousands of miles of travel, Dr Rahman, a slight man of tremendous energy and total dedication to the ideals of UNESCO, succeeded in negotiating agreements with the governments of India, Indonesia, the Philippines and Thailand regarding the soon-to-be Regional Institutes. Thus began UNESCO's Regional Institute Model of educational development in Asia.

The Tokyo Extension and the Asian Model

The next significant step was in April 1962, with the Tokyo Meeting of Ministers of Education of Asian Member States Participating in the Karachi Plan. The purpose of the meeting was "to stimulate and co-ordinate the action of cooperating agencies in the extension of primary and compulsory education in Asia" (UNESCO, 1962, p.1). After reviewing the progress made by individual countries in the first two years of the implementation of the Karachi Plan, and after hearing of the successful establishment of the three Regional Institutes and the Regional Office in Bangkok, the representatives in Tokyo called upon each Member State to develop a detailed, long-term national education plan, *covering all levels of education,* and submit it to the UNESCO Regional Office in Bangkok.

Of the several major amendments to the Karachi Plan, the most important became known as the 'Tokyo Extension'. It reflected a realization that other aspects of educational systems must be addressed at the same time as the expansion of primary education. The Conference Report makes clear that "the *Karachi Plan* is an essential first stage---it must be extended to cover all levels of education---primary, secondary, higher

and adult---in each of our countries" (UNESCO, 1962, p. 38). This was a monumental upgrading of the original commitment.

The delegates at Tokyo then called upon the UNESCO Regional Office in Bangkok to compile the information that each Member State would be submitting as their long-term national education plans. The Regional Office was to compile these plans, along with a comprehensive needs analysis for each country that was being undertaken concurrently, and then develop a method of analysis that would better inform policy-makers in the region. This was deemed necessary because educational planners in the region found the Karachi Plan wanting in some critical regards. For instance, though it was based on statistics that were supposed to be descriptive of education in the region, it provided little real analysis that was useful for planners. Furthermore, many felt that its economic forecasts were not grounded in the reality of their individual country contexts. In fact, so unrealistic were the economic predictions upon which it was based that it was often referred to as 'pie-in-the-sky'. A new methodology was needed that would yield more accurate data, and that was also adaptable to the specific needs of each country, and even to different regions within each country.

Much of the work of developing this new methodology was done prior to April 1965. However, its final form was very much influenced by the contribution of the new Director of the UNESCO Regional Office, Raja Roy Singh, an educational administrator from New Delhi. The 'Asian Model' (UNESCO, 1966), as it became known, was presented to the Bangkok Conference of Ministers of Education and Ministers Responsible for Economic Planning of Member States in Asia, in November 1965 (UNESCO, 1965). The overall importance of the Asian Model cannot be understated. It not only provided key data missing from the Karachi Plan, it regionalized the entire educational development effort. The Asian Model marked both the attainment of, and the acceptance of, a new level of responsibility and self-respect for the countries of the region.

UNESCO-Japanese Co-operation

The next building block for educational innovation for development in Asia-Pacific came in 1967 when the Director-General of Japan's National Institute for Educational Research (NIER), Dr Masunori Hiratsuka, and Raja Roy Singh, forged an agreement for direct co-operation between NIER and UNESCO. The agreement bound both UNESCO and the Government of Japan to "provide a joint co-operative programme in educational research in Asia, through the National Institute of Educational Research [NIER], Tokyo" (UNESCO, 1971a, p. 6). This

was the beginning of an important link in the Institute system for regional co-operation, and later would prove to be an invaluable piece of the new APEID network. "No other educational co-operation programme, in this region or any other developing region, has brought together so many countries, representing such an enormous range of diversities, in a systematic and sustained way for mutual help, over such a long period of time" (ACEID, 1998, p. 6).

The first meeting held under this agreement took place later in 1967. It was a meeting of regional experts in educational research. It recommended that a long-term study be conducted across the region to determine each country's needs and goals for educational research, curriculum development and educational planning in relation to the overall planning for development. This linkage of educational planning to development is significant as it foreshadowed the network model of educational innovation for development. By and large, education had traditionally been treated as a separate entity with no direct link to other social and developmental problems like poverty, disease, unemployment, and over-population. Eventually, participants at the Chiangmai Seminar in 1971 would elaborate upon this connection, making a clear distinction between social and economic development, and call for an emphasis on both. In other words, educational innovation would no longer be isolated from other aspects of development, and development itself was no longer to be exclusively understood in terms of economics and Gross National Product (GNP).

The Chiangmai Seminar recommended that, as the Regional Institutes had effectively raised the level of expertise in the region, it was now time for the next phase. After much persuasion, Raja Roy Singh was able to advance his idea as to what that next phase should comprise. He advocated a Regional Office with "a critical mass of interdisciplinary specialists to provide a nerve centre to activate the operations in a whole continent with mobile task forces ready on call, resource persons available at the end of a telephone line, and forums for exchange of information and experience, all guaranteeing a perpetual meeting of minds" (Guruge, 1986, p. TWO/28). Officially authorized in 1972 by the 17th Session of UNESCO's General Conference in Resolution 1.211, (UNESCO, 1973, p.1), the APEID/ACEID network was established through Resolutions 13 and 14 of the Third Regional Conference of Ministers of Education and Those Responsible for Economic Planning in Asia (UNESCO, 1971b, p. 59). APEID was, and continues to be, an *Asia-Pacific* network: of and by the Member States of Asia-Pacific, and for the common needs and interests of the Member States in Asia-Pacific, *as they determine them to be.*

Conclusion

This concludes this brief review of the beginnings of UNESCO's educational innovation for development effort in the Asia-Pacific region. The Regional Institutes contributed to the building of national capacities. They not only saw the development of necessary educational infrastructure across the region, but also the emergence of an educated and experienced nucleus of professionals who would shape the movement for educational development in the future. Furthermore, three critically important developments resulted from these events. First, regional co-operation had been achieved and a regional sense of identity was emerging. Second, the old donor/recipient model had been largely abandoned for the new co-equal collaborative network model in which every country's expertise and contributions could and would be acknowledged. And third, adding overall development as an objective of education officially grounded education in practical policy and local needs. A relatively small group of dedicated and talented individuals, supported by UNICEF, UNDP, the Member States themselves, and especially the Government of Japan, charted a new direction in educational innovation for development that would see APEID/ACEID to the end of the century and beyond.

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Chapter Two

CONTEXT AND STRATEGIES FOR EDUCATIONAL INNOVATION FOR SUSTAINABLE DEVELOPMENT IN ASIA-PACIFIC

John Dewar Wilson

Introduction

Asia-Pacific Centre of Educational Innovation for Development (ACEID) encompasses a region that houses two thirds of the world's population. It is diverse in many respects – economically, in terms of religion and values, age distribution and structure, birth rate and standard of living. It includes 'mature' economies, such as those of Japan, Australia and New Zealand, the much heralded economic 'tigers' of Singapore, Taiwan and South Korea, and least developed countries such as Myanmar, Cambodia, Nepal and Bangladesh. In 1997 GDP across the region varied from USD$25,000 per head in Japan to USD$1,900 in Thailand and USD$218 in Bangladesh (UNDP 1999). The age distribution varies greatly with around 50 per cent of the estimated 120.4 million Bangladeshi population being under the age of 20, while around one in five Japanese is aged over 65. Cultural norms reflect the influence of religion and tradition with Hindu, Moslem, Buddhist, Shintoist and Christian belief systems shaping values and attitudes to authority and change. In his classic study of non-managerial workers at IBM in different countries across the world Hofstede (1991) found clear differences in characteristic traits of people from different communities. One trait of special relevance to innovation is likely to be 'uncertainty avoidance' where high scorers are likely to reflect the desire to stay with the tried and familiar rather than with the new and unknown. Japan and, to a lesser extent, Pakistan score relatively high on this dimension; Singapore scored lowest, and Hong Kong, Malaysia, India and the Philippines were also relatively low scorers. Thus generalizations about the region must be made with caution.

This chapter sets out to provide a context for *Snapshots,* to review the models of innovation that the examples are based on, and to identify and discuss factors influencing sustainability. It draws on the literature on planned change and innovation, as well as on the author's experience as an education consultant in Australia and Asia, over almost 20 years, and as teacher training specialist to the Higher Secondary Education Project

(HSEP) in Bangladesh in 1996-97 (Wilson 2000). HSEP was the first project in Higher Secondary Education and aimed to promote reforms of the aims of education for that stage (grades 11 and 12), the content and structure of curriculum and examinations, teachers' pedagogy and management of education.

Educational Development

The social and cultural diversity of the Asia-Pacific region is reflected in the extent and quality of educational provision. The issues relate to access, participation, achievement in the narrow sense of skills and competencies acquired, and in the broader sense of 'empowerment' resulting from confidence and a sense of self-worth deriving from the personal efficacy that achievement may bring. Though societies differ in wealth and in stage of economic development, all face problems in relation to each of these issues for some members in their community, but the scale of need differs markedly between them.

A basic indicator is achievement of basic literacy. The UNESCO World Education Conference at Jomtien, Thailand in 1990 set the goal of 'universal literacy for all' by the end of the decade. The achievement of this goal for young people depended upon providing access to schools, identifying and training teachers and head teachers, introducing a management structure at district and sub-district level, providing resources of accommodation and learning materials, and providing incentives for participation by the specially targeted groups. These comprised students from slums or rural areas, often from ethnic minority backgrounds, girls, and students with special educational needs such as the physically and intellectually disadvantaged. Though the problem of access and participation was most acute for societies characterized by high birth rates and endemic poverty caused by over-population or military destruction, such as Pakistan, India, Nepal, Bangladesh, Myanmar, Cambodia and Laos, it presented in all societies, even the most advantaged economically. Thus Australia faces the problems of securing participation of children from the aboriginal community, while Japan has a similar difficulty in relation to the three million Buraku people who have not been successfully assimilated into mainstream society, and who are provided with Dowa education. Though significant efforts have been made to achieve universal literacy, and substantial gains have been made, the evaluation of efforts to realise the goals of Jomtien (Vine 1999) indicates that in some places disparities between, and within, countries have actually increased over the decade. In India for example, the gross enrolment ratio varies from 100 percent in Kerala, Karuataka and Gujerat to approximately 70 per cent in Bihar and Uttar Pradesh, while gender

disparity in gross enrolment ratios are as high as 42 percentage points in Bihar and only 3 per cent in Kerala.

Concurrent with the drive to improve access and secure higher participation rates in primary and secondary education has been the effort in all countries to improve both levels of achievement and quality of provision. With regard to the former the issue has been to encourage more young people, and especially girls, to progress from primary to secondary education, and to complete an extended secondary course. In Bangladesh incentives for girls to continue at secondary school have included free uniforms, textbooks and stipends paid on the condition of not marrying. The impetus to improve quality has come from the recognition of the obsolescence of knowledge, and the need to develop skills for a world characterised by rapid social and technological change. The introduction of information technology and the desire to foster health, social, cultural and environmental awareness are some examples; another is the competitive ethos that makes each society encourage intellectual, personal and social development of its members so that they may contribute to economic growth and social stability. Responding to advice from its central advisory bodies Japan's Ministry of Education, Science and Culture – Monbusho – is attempting to minimise the 'examination hell' that many pupils experience by promoting a 'zest for living' among its school age population. It is reducing the length of the school week from six to five days, introducing integrated studies into the elementary curriculum and giving older members of the community an enhanced role as 'volunteers' in primary and secondary education. It wants schools to foster positive attitudes to learning among young people, since such attitudes are essential if people are to want to learn 'lifelong', as they need to do, and as society needs them to do, to survive in the modern world (Wilson 2001).

In Australia, the Governments of the States and Territories joined with the Federal Government in April 1999 in committing to the Adelaide Declaration on National Goals for Schooling in the Twenty-first Century (DETYA 1999). The Declaration endorses many of the goals advocated by UNESCO including lifelong learning, social justice and inclusiveness, respect for the culture of others, environmental awareness and personal responsibility. In Thailand an Education Act was passed in 1999 that made education compulsory for nine years, and provided free education for all up to grade 12. The Act states that the curriculum will be student-centred and inclusive, and promote such skills of lifelong learning as learning to learn, active learning, problem-solving and creative thinking. Thus throughout the region there is evidence of a concern at national level for qualitative improvement in learning and in the skills and competencies developed by students.

These policy initiatives, of course, represent aspirations – visions for change – rather than change itself, though without such vision, and a commitment to education by those at all levels of society, change itself will be harder to bring about.

Models of Educational Innovation

A distinction needs to be made between change, planned change and innovation. Change is continuous with life, as when pupils proceed through the stages of a school, or when teachers retire and new teachers are recruited to replace them. Such changes may have little effect on the total system since the turnover of personnel in the education service is around 3-5 per cent per year, depending upon the age distribution of teachers. Retiral of an influential individual, or their departure for a new post, such as the turnover of Team Leaders or of a Permanent Secretary of a Ministry of Education, can, of course, significantly influence the outcome of policies, programmes and projects. Equally the arrival of new leaders with new beliefs, practices and networks can make a significant difference in some contexts.

Innovation is a term that may be defined 'narrowly' or 'broadly'. In its narrow sense it may be identified with originality. Thus the microchip is an innovation, as was the discovery of DNA structure by Crick and Watson (Watson 1968). These innovations have the characteristics of 'revolutions' (Khun 1970) in that they represent, in the first case, a new technology that has transformed information storage and communication, and, in the second, a breakthrough formulation of the basic structure of the human body. Subsequent development and elaboration of these ideas is 'incremental' - step-by-step harnessing of the implications of the discovery. Education has examples of innovation in this narrow sense. In the 18th Century Jean Baptist de la Salle introduced 'simultaneous instruction', a system that replaced the single teacher/single student relationship, that was the learning situation of earlier days, with 'classes' of between 20 to 30 students under one teacher. This innovation paved the way for the system of mass education that we take for granted today (Ordonez 1999). De la Salle illustrates the 'power of one' – the effectiveness of the lone innovator who sees a new way of achieving worthwhile goals. If today's soaring demand for education is to be met within current economic constraints more such innovators are required, harnessing the potential of online technology for example. However, even the most gifted innovator may need sector and institutional support if new ideas are to be sustained and become part of 'normal' practice.

Innodata's definition of innovation – "initiatives new within a specific sub-regional, national, local or institutional context, even if familiar in

other settings" – sits comfortably within the broader idea of innovation as 'planned change' i.e. the deliberate attempt to improve the quality of practice in some specific context.

Planned change involves stages of initiation, implementation, continuation and results – the evidence that the change is achieving the anticipated outcomes (Fullan 1991). Successful management of each stage depends upon a wide range of factors that can be only touched on here. Initiation, for example, is a response to the identification of a problem or need. The quality of initiation depends upon how accurately and carefully the need is analysed. Evaluation skills are called for here, drawing on the 'platform of ideas' of the evaluator. In addition, the strategy to follow to bring about 'improvement' may be less than self-evident. Walker (1990), following Schwab (1969), points to the need for deliberation on which alternatives are feasible and appropriate and will best address the situation. Implementing a plan involves marshalling the requisite resources, and securing the support of stakeholders i.e. those with an interest in the issue. It is also likely to involve training. The quality of trainers, and the investment in training may be crucial factors. In their work with teachers in United States, Joyce and Showers (1995) have described what is involved in teachers learning new models of teaching. For learning to occur both a theoretical rationale for the new approach needs to be provided as well as modelling of it in the classroom by the trainer. But learning through listening or 'assimilation' alone has been shown to be insufficient: for the internalization and ownership of new skills and ideas 'accommodation' must be promoted through the process of doing. Early opportunities for practice are required in both 'safe' simulated settings, and in the less easily controlled – from a practice perspective – actual classroom setting with pupils. In both contexts transfer is aided by coaching and mentoring support from trainers and peers. Because of the number of teachers involved in education systems in the more densely populated Asian countries, resort is often made to a 'cascade model' whereby the trainers of trainers train field trainers who actually train classroom teachers in batches. An example is provided in the SMART-PT project in India reported in this volume.

The difficulty of bringing about change where it really matters – in the behaviours, attitudes and practices of teachers and students – is the long 'chain of inference' or 'programme logic' (Owen and Rogers 1999) that many projects in education carry. For example, the goals of HSEP in Bangladesh included 'assisting students to develop employable skills'. The purpose of the teacher training component was to introduce the first teacher training for Higher Secondary Education teachers. The training was to be 'practical', so that teachers would implement practical

activities in their classrooms, and students consequently would learn in practical ways, rather than by listening to lectures and rote-learning obsolete facts for examinations. These goals could be translated into the hierarchy shown in Figure 1. The outcome of the consultancy, however, was limited mainly to achievement of the 'enabling objectives'. This was because the teacher trainers were themselves untrained, and most were unfamiliar with the concept of 'practical activities' in teaching and learning. Assisting them to recognize and practise 'practical activities' was clearly a main goal of the consultancy, and indeed a pre-requisite for achieving the higher order objectives (Wilson 1998).

Figure 1. Hierarchy of objectives for Higher Secondary Education teacher training consultancy in Bangladesh (1996-97)

8. Students develop employable skills

7. Students can demonstrate understanding rather than recall

6. Students learn in practical, activity-based ways

5. Teachers can apply the recommended methods in their own classrooms

(target objectives 5-8)

4. Teachers master training methods recommended by the programme

3. Trainers deliver teacher training programme to trainee teachers in intended way

2. Trainers are trained to deliver the programme

1. A practical activity-based teacher training programme is developed

(enabling objectives 1 to 4)

Planned change in the curriculum may be promoted on one of a number of models. The model adopted in the United States in the 1950s, in response to the launch by USSR of the first Sputnik, was the 'great minds' approach. The nation's leading experts in such fields as mathematics, physics, and biology developed curricula and prototype materials for trialing in schools, subsequent fine-tuning and then dissemination across the system. This 'research, development and diffusion' model was also adopted in UK in the Nuffield curricula in mathematics and science of the 1960s, but its success depended upon the quality of initial matching of curricula to the ability range, and subsequent fine-tuning. In some cases this did not occur (Shayer and Adey 1981). Curriculum development became institutionalized in many countries through the

setting up of national bodies with responsibility for the curriculum and, in some cases, such as the Schools Council in England and Wales, for the examination system too. Notable examples in Asia include the Curriculum Development Centres (CDC) in Malaysia – still very active and productive as its entries in this volume indicate – Sri Lanka, Australia, Bangladesh and Thailand. CDCs had a core of permanent staff, but often operated through projects that harnessed the skills of experienced and innovative teachers, the aim being to identify and develop 'good ideas' and disseminate them across the system. Evaluation of the effects of these projects came to be seen as an important means of understanding the innovation process in general and the personal and situational factors affecting adoption of their ideas.

In many countries CDCs have disappeared, or, as in Bangladesh in 1983, merged with National Textbook Boards or other institutions. In part this may be explained by the recognition that developing and introducing new curricula is central to the quality of education and must be linked to textbook supply, to reform of the examination system, and to initial and in-service teacher education and effective management policies. In part it reflects the development by governments of centralized planning systems in which education and training are tied closely in to the achievement of economic and social objectives. Another factor is the trend towards decentralization as both a response to, and encouragement of, local and community aspirations. Furthermore, there has been a growth of new avenues of funding. National governments have negotiated loans from international agencies, such as Asian Development Bank (ADB) and World Bank (WB), and grants from bodies such as UNICEF, or bilateral aid from agencies, such as USAID and AusAID to assist them to achieve educational objectives of their five-year national plans. Several examples of this kind of cooperation are reported in *Snapshots*. HSEP was funded on this basis. ADB and UNDP contributed loans and grants respectively to complement the investment made by Government of Bangladesh (GOB). The project was put out to tender and, after much delay, a consortium of companies both international and local, was awarded the contract. GOB established a Programme Support Unit (PSU) staffed by senior professionals led by a Programme Director. Expatriate and local consultants worked together to implement the project. Reviews of progress were undertaken at frequent intervals by the funding agencies on the basis of reports from PSU and consultants, and field visits by staff of the agencies themselves.

But planned change does not occur only on a top-down or centre-periphery (Schon 1970) model. As several *Snapshots'* entries indicate many innovations have a grassroots origin, reflecting the identification of a need by individuals, communities and agencies, and the taking of steps

to address it through securing community participation and involving Government and other funding sources. Such development is often undertaken on an action research model whereby needs analysis is the first step in a cycle of action, evaluation and reflective analysis, aimed at considering how best to improve the quality of learning experience of the target group. The Thai-UNCAP programme is a good example of this approach.

Conclusion

Innovation in primary and secondary education is being attempted at a variety of levels in all countries in Asia and the Pacific. Any innovation or planned change is difficult, since it requires people to change their beliefs and practices and do something different. For parents it may involve sending their children to school instead of having them work in the fields or at home. In the process their children may learn 'new ways' that may cause them to challenge 'tradition' and lead to a disregard for roots – tensions of the kind identified in the Delors Report (1996). For teachers, innovation invariably requires them to learn new content, to develop a different role in the classroom, to jettison out-of-date resources and familiarize themselves with new ones. It may involve new professional responsibilities: attending school regularly, using their time in the classroom more effectively, setting homework and correcting it in their own time, developing new audio-visual resources at their own expense. For this to happen there must be adequate and appropriate supervision, and a management that is responsive to teachers' work load, and that ensures that salaries are paid regularly, class sizes are tolerable and textbooks are available on time. Unfortunately the scale of need and the level of available resources in the poorest countries in the world, and in regions within even those that are less poor, make it impossible to guarantee such *desiderata* at the present time. The total sums involved are trifling compared to current world expenditure on, for example, armaments. Global Plan of Action estimates that expenditure of 8 billion pounds sterling each year over one decade would ensure access to schools for the 125 million children of primary school age in developing countries across the globe that currently lack it (Brittain et al 2000). But even with such provision change itself may not be embraced with enthusiasm. There is the well-known phenomenon of resistance to change – 'dynamic conservatism' – resulting in active rejection of new ideas in some cases. Change is political and involves costs: without such costs it is unlikely that **real** change – **deep**, in terms of learning outcomes, **long-lasting** as regards continuity, and **broad** in terms of its capacity for generalizability (Hargreaves and Fink 2000) – is occurring. But the costs of change are likely to be more readily borne by those who

are convinced that they are worthwhile. And that recognition stems from a vision that education can 'make a difference' to the lives of those who have access to it; that support – material, psychological and social – exists for the effort, and that evidence is collected through evaluation that demonstrates that results represent 'improvement' in some essential sense. The studies reported in *Snapshots* indicate that such a vision is held in many quarters in Asia and the Pacific at the present time. They show that many imaginative ideas are being trialed in the face of what are sometimes enormous disincentives. Much is being achieved to extend opportunities to access primary and secondary education, and to improve the quality of the educational experience of young people in the region. Even more, however, undoubtedly remains to be done.

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SECTION B

- List of Projects by Country
- Notes on Contributors

1. Developing Socially Just Schools

Violence is a growing problem in Australian primary and secondary schools. In many cases such violence is emotional and psychological rather than physical and, as such, does not fit traditional definitions. Bullying is more common in primary school; in secondary students are often the subject of deliberate rumours and the writing of spurious notes.

The issue is tackled in this award-winning project, undertaken since 1996 in association with the Department of Education, Victoria. It involves workshops for teachers and students that examine critically the whole school culture, and that aim to develop policies and curricula on a whole school approach to facilitate a socially just school environment. The consultants - Berry Street - are established as a Non-Government Organization since 1996. They have adopted a broad inclusive definition of violence that challenges existing relationships based on domination and submission, and facilitates an understanding of violence as a continuum of behaviours. Teachers and students are taught to see that violence takes many forms and ranges from the more subtle and pervasive forms of coercion, intimidation, abuse and harassment to more serious illegal acts of assault. A central idea is that all forms of violent behaviour are an intention to exert power and control.

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2. Student Teacher Attitudes to Indigenous Youth

Australia's indigenous population represents less than 3 per cent of the total. While traditionally they have lived in rural areas there has been a recent drift to urban areas. Most student teachers in Australia are from Anglo-Celtic heritage, female and under 25 years of age.

Relations between indigenous peoples and the majority of the population are perceived in many cases to be poor. Indigenous people experience many social problems. In 1991 a Royal Commission recommended that all teacher training courses include studies to enable student teachers to understand aboriginal history and viewpoints on social, cultural and historical matters.

With the support of the Ministry of Education, Edith Cowan University in Western Australia developed a compulsory unit of 3 hours per week on education of indigenous Australians for the third year of the four-year bachelor programme for teacher education students. The unit addressed the potential impact on learning of cultural and ethnic diversity, social background and gender. Included in the unit are discussions of learning styles, classroom dynamics, and language acquisition among indigenous peoples. Strategies for prejudice reduction, cross-cultural communication and cultural awareness are also included. Student assessment is based on an analysis of an interview with an aboriginal person, as well as assignments and examinations.

An evaluation found that student teachers were generally supportive of the unit, particularly towards having aboriginal lecturers. The interview assignment was considered to be beneficial, although most students found that the task was difficult. Student teachers also considered a relevant practicum to be necessary.

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3. Nyerna Studies

The indigenous community of Echuca-Moama, 200 kilometres north of Melbourne, Victoria, was concerned about young people leaving the community to study in higher education, a field in which it had little experience. It approached Victoria University of Technology in 1997 with a request for it to provide a programme. An innovative, integrated four year combined BA/BEd was negotiated with subjects including

Education, Indigenous Culture and Knowledge, Sport and Recreation and Youth and Community.

The course commenced in 1998 with 40 students from both indigenous and non-indigenous backgrounds. Its objectives are to provide an environment for indigenous and non-indigenous students that is respectful and democratic, and to promote reconciliation (between the two communities) at the local level.

Staff of the University travel to the location each week, or on alternate weeks. Subjects are integrated as much as possible around learning outcomes. Distance learning techniques involving information technology are being introduced. It is claimed that visible progress in learning is occurring with students interacting and learning from each other. Tension between indigenous and non-indigenous communities in Australia means that there is a need to ensure both strong links between the university and the community, and respect for the indigenous community.

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BANGLADESH

4. Gonosahajjo Sangstha Schools Project

Primary education in Bangladesh is hampered by many factors. They include:

- social attitudes and beliefs that favour the conventional system of rote learning
- lack of conceptual understanding of quality education and its links with child-centred learning
- syllabus and curriculum that lack challenge
- lack of appropriate and sustainable teacher training and teacher aids
- a supervisory system that is not sustained through community involvement and participation, but is directed from the top down.

Since 1989 this UNICEF project, which is supported by the Ministry of Education, Bangladesh, has worked in remote rural communities and with slum dwellers. It aims to improve the quality of primary education through a child-centred approach and increased community participation. It began with six primary schools and currently works with 452, built as permanent structures though with low-cost materials. The project's success may be attributed to the way in which it has involved local communities in plans to establish schools. Parent-teacher Associations monitor school activities, and teachers are required to spend 30 minutes each day carrying out community work. A three-tier school management structure operates at regional, district and school level, and a distinction is made between 'setting up' and 'running' schools. For each process, clearly defined responsibilities are detailed at each level. At the school level supervision is designed to support teacher initiatives in classroom organization and management, and to help build teacher capacity. District level responsibilities include coordination, follow-up teacher training, and mobilization of community involvement. Regional level responsibilities also include coordination and staff development through provision of regular workshops. In this project literacy is viewed as the acquisition and retention of a set of skills in an interactive classroom environment and as a phase in human learning, but never as the end product of schooling or education. This shift in perspective challenges the view that literacy is synonymous with learning, and that learning means being able to memorize and reproduce.

School building involves land transfer that can be slow and complicated. New ways of teaching and assessing, too, may stimulate parental resistance.

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5. Cambodia-Australia National Examination Project (CANEP)

Secondary education became more important in Cambodia in the 1990s as reflected in a 24 per cent increase in enrolments between1991 (250,000) and 1997 (327,566). Examinations were conducted for many years at Grades 5, 8 and 11 by the Ministry of Education, Youth and Sport. In recent years the examinations were held at Grades 9 and 12. Limited resources meant that all examination administration and record keeping was done by hand. There were limited print runs for examination papers. For example, cost allowed only one examination paper per classroom with question(s) written on a chalk-board in the examination room. One effect of this was to restrict the type and format of the examination questions, and to over-emphasize rote learning and the recalling of facts, thus limiting the validity of examinations. A disruptive factor, too, was the tendency for family members and friends, anxious for their student to do well, to gather round the examination centres, and for some members of the crowd to attempt to throw answers into the examination room to help students. Consequently it was necessary to deploy security personnel to secure the examination centre externally. In addition elaborate administrative measures have been needed to guard against irregularities by students in the examination rooms through allocating examination supervisors, controllers and heads of examination centres from different provinces. In 1994 a review of the education sector recommended that nationally moderated grade 5, 8 and 11 examinations be introduced and a National Schools Examination Unit (or Board) and Inspection/Supervisory service be established. AusAID – Australia's Agency for International Development – provided assistance for an initial investigation in 1995-97, which led to the present project.

The Cambodia-Australia National Examination Project began in 1997 and is due to complete in 2001. It has Ministry of Education and AusAID support. It aims to:

- provide infrastructure support to promote the efficient and secure administration of the national examination system at Grades 9 and 12
- improve the quality of the examination papers and of the marking processes, and
- facilitate the review and development of examinations and other educational policies on the basis of reliable data and research.

The project has:

- extended the range of question formats
- made the examination paper serve also as the student script
- introduced school-based marking for Grade 9 examinations, although these continue to be centrally set
- researched inter-marker variation in Grade 12 First Examinations
- undertaken a needs assessment concerned primarily with the examinations infrastructure, including producing profiles of performance in different subjects, and computerized student records and created databases of results.

It has also made cost savings through eliminating Supplementary Examinations in Grade 12.

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6. Cluster Schools Project

Primary education in Cambodia was virtually destroyed by the civil war of the 1970s. However, by 1981 more than 1.5 million children were enrolled, though quality of the system was low with high repetition rates (40 per cent in grade 1) and low (13 per cent) completion rates to grade 5. In remote regions participation rates were even lower. The high wastage could be attributed to the lack of qualified and trained teachers.

The objective of the cluster schools project is to form clusters of schools so that in-service training can be provided in an efficient and cost-effective manner. UNICEF, in cooperation with the Ministry of Education, Youth and Sports, Cambodia, established cluster school projects in four provinces in 1993.

The overall purpose of a school cluster is to redress any imbalance in education by grouping schools that are located near each other in a cluster, mixing 'strong' schools and 'disadvantaged' schools in such a way that the latter benefit from the achievements and advantages of the former. Typically a cluster is formed from six to nine primary schools.

Schools in a cluster work together in four main areas: sharing material resources, sharing human resources, management and community liaison. With regard to material resources each school draws support from one resource centre which houses basic equipment that could not be afforded for each school separately. Examples include supplementary readers, silk screen supplies, and science aids. The human resources of each school can also be drawn upon for in-service training, ideas sharing and mutual support, and teachers brought in with specialist skills can service all teachers using materials from the resource centre. Administrative tasks of cluster schools are simplified by implementing a strategy of having cluster school heads be responsible for micro-planning, personnel management, supervision, resource mobilization etc, thus enabling more time to be spent on teaching and in-service training activities. Community involvement is enhanced by allowing parents, and other members of the community, to use cluster school facilities as adult learning centres. Cluster committees are formed, in addition to school Parent-teacher Associations, to foster closer collaboration between schools and their communities.

Wastage rates in two of the project provinces have improved significantly since the beginning of the project. However, since many families are illiterate and do not understand the importance of education, there is a constant need for parental training.

Reference

Dykstra, A and Kucita, P (1998), School-based management through cluster schools: A case study from Cambodia in *Education for All: Making it Work*, UNICEF, Bangkok.

Contact

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7. Curriculum and Textbook Development for Primary, Junior Middle and Senior Middle Schools

Since compulsory education has been introduced into China there is a need to provide textbooks, and to further develop the curriculum at all levels of education. This curriculum and textbook development project is being undertaken by the Curriculum and Teaching Materials Research Institute of the People's Education Press, Beijing. It commenced in 1989 and is due to end in 2000. It aims to ensure that sufficient numbers of appropriate textbooks are available to support an integrated curriculum. It investigates various aspects of curricula and undertakes curriculum development, trialing draft texts, and relevant teacher training in pilot schools. Textbooks are improved subsequent to trialing, and further evaluated after their introduction into schools. The project has assisted in modernising the curriculum and the textbooks that support it.

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8. The Secondary JIP in China - Student-Centred Success

The Secondary JIP, whose full name is, "The National Action Plan for Joint Innovative Project on Raising Students' Learning Quality", was initiated by the Chinese National Commission for UNESCO, and the Asia-Pacific Centre of Educational Innovation for Development (ACEID) in 1990.

The Secondary JIP provides an example of what can be achieved, in a cost-effective way, to upgrade and revitalize secondary education to meet the changing educational needs of both individuals and society. The core of this comprehensive project was to increase the quality of student learning by changing from a traditional methodology to a student-centred one, without decreasing class size. The Secondary JIP also sought to increase students' problem solving abilities, raise awareness of aesthetics, physical and psychological health, and involve family and community in the moral education of students.

The first phase of the project, from 1991 to 1994, consisted of three years devoted to the experiment and one year of feedback and evaluation. The project targeted 16 schools, 63 experimental classes, 300 teachers and 3,000 students. The guiding principles employed were to provide for all students in the experiment "major involvement, guidance at all levels, timely feedback, encouragement and evaluation".

After the first phase, an extensive evaluation indicated that students' learning qualities in all measured areas had markedly improved. Changes were also noted in the teachers. Those involved in the experiment had participated in many in-service training sessions and regular staff meetings for the sharing of ideas and successful strategies. They had also been engaged in active research in their classrooms. Overall, teachers' skill and abilities had greatly improved, as well as their self-confidence, self-esteem and pride in their profession.

The second phase of the JIP was conducted from 1 September 1995 to 28 May 1998. It consisted of an expansion to 268 pilot schools, over 3,000 teachers and more than 45,000 students. The second phase evaluation again indicated a very high level of success on all aspects of the project. Furthermore, it was noted that there had already been a 'spill-over effect' in that many teachers, not directly involved in the project, had learned from their peers and had modified their own pedagogy and curricular materials based on the perceived success of the project.

Today, the third phase of the Secondary JIP has expanded the project even further. Many books, papers and research findings are available.

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9. An Effective Induction Model for Beginning Secondary School Teachers

Most studies of the problems of beginning teachers have been carried out in western countries. Little research on this topic has been conducted in Asia. Research at the Hong Kong Institute of Education indicates that beginning teachers face problems that vary over time. Initially teachers are concerned with structural influences related to micro-level problems. Examples of such problems include classroom discipline, classroom organization, planning of lessons etc. After the first six months problems become more related to personal influence and macro level issues. Examples of these latter difficulties include relationships with parents,

dealing with problems of individual students, relationships with principals and administrators etc.

An induction programme to address such issues was developed in 1992 for secondary teachers entering their first year of service. It began with a 'familiarisation' phase which commenced one month before the beginning of the school year. One reason for this early start is to prepare new teachers psychologically for their workplace, and this is sometimes easier when pupils are not present. The familiarization phase extends over two months and during this time additional clerical support is provided to the beginning teachers, and work management skills are introduced.

The induction programme then moves into the 'adjustment' phase. It lasts three months (months 3-5) and focuses on stress management skills. In addition there are regular sessions with their peers that focus on learning to teach. More release time is provided for beginning teachers than for experienced teachers, and formative evaluation strategies are introduced so that they are able to monitor their own progress.

The final six months is the 'stabilization' phase. In this period a series of professional courses or workshops related to practical classroom-based problems are provided. In addition beginning teachers are encouraged to participate in decision-making processes of the school. To alleviate possible tensions and the pressure of work, group recreational activities with their peers are organised and encouraged during this period.

Reference

Chan, PK (1998), *Caring for beginning secondary school teachers: A quest for an effective induction model.* Paper presented to Secondary Education and Youth at the Crossroads Conference, ACEID, Bangkok.

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10. Lok Jumbish - The People's Movement

Rajasthan is one of the least developed states of India, with a literacy rate of only 39 per cent. Of the 6-14 year age group, 55 per cent are out-of-school, and of those in-school some 55 per cent drop out before grade 5. As a result fewer than 30 per cent of people complete primary school by the time they enter adulthood. A group of students who are particularly disadvantaged are those who come from itinerant families. These families are required to move about on a seasonal basis in order to find employment. The nature of their migration takes them to areas where no schools exist. As a result many of these children never have the opportunity to attend school.

A factor contributing to poor results in primary education is the poor quality of teachers, and a pedagogy which is teacher-centred, and which encourages rote learning and memorisation. Teachers hold low status in the community and consequently their motivation is low.

The project, which is conducted by the National Institute of Educational Planning and Administration, New Delhi, with funding support from UNICEF, began in 1989 and is due to end in 2000. To improve motivation it has provided regular in-service training through teacher participation in 'motivational' camps. The camps are held in the first summer vacation of all schools belonging to a cluster. During the camp, attempts are made to improve teachers' scholastic and pedagogic competence as well as to enhance their self-esteem. They are also encouraged to participate actively in all developmental programmes organised in the village, be it school-mapping exercises, the building of development works, or the preparation of proposals. As of December 1996, Lok Jumbish was operational in 186 clusters and more than 6000 teachers had received training.

Low cost hostels have been built to allow children of itinerant families, and those from very remote regions, to participate in formal schooling. Parents of children at these hostels are required to assist in their running, either by making a financial contribution or in kind, such as helping in the kitchen or teaching students agricultural skills. Hostels are designed to support a small number of children with disabilities to attend school.

Reference

Govinda, R (1998), Lok Jumbish: An innovation in grassroots level management of primary education in *Education for All: Making it Work*, UNICEF, Bangkok.

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11. School at the Doorstep

In India, since 1986, national policy has been to establish District Level Institutes of Education and Training (DIET) to provide academic and resource support to communities at the grass-roots level, thus promoting the goal of universal education. The Institutes have been established as one alternative to formal education for children who live in areas where, because of population increase, classrooms are overflowing, or, because of lack of community participation, schools do not exist. In Delhi there are seven DIETs. In the district of Daryaganj the population often clusters in areas that are not easily accessible and thus children do not have access to an existing school. Yamuna Pushta is one such cluster that has formed on the banks of a river and some 40 per cent of children are not attending school. The cluster is crowded and there are no open spaces that can easily be used for a school.

This project by the District Institute of Education and Training, Daryaganj, in association with the State Council of Educational Research and Training, began in late 1997, and aims to mobilize community support to provide basic materials for non-formal learning. It also seeks to encourage teacher trainees to teach on a voluntary and part-time basis. An over-riding objective is to encourage children to want to go to school, and to provide support for children to enter or re-enter the formal system.

A project survey, undertaken with the assistance of teacher trainees, identified 90 children in the district who were not attending school. The project team liaized with community members to organize non-formal classes for 60 of these children aged between 6 and 14. However, many families brought children as young as 4 years old to the project and so a school readiness class was formed.

Community leaders provided a small plot of land and parents collected old sacks and bags to develop a seating area for students. Teacher trainees attached to the DIET were encouraged to teach these children, and 10 did so. Their teaching was credited as part of their formal teaching practice. An important part of the project was the transfer of teaching skills from these trainees to community volunteers, since the trainees could participate in the project only during their teaching practicum. Competency-based integrated text material was used as the

basis of learning, and enrichment activities were introduced to develop a pleasant atmosphere.

The community was appreciative of having a local school and gave support where possible. Learners attended regularly and enjoyed the relaxed atmosphere. The motivation of volunteer teachers decreased over time since there was no financial benefit and conditions were difficult, particularly during the cold rainy season.

Contact

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12. State-wide Massive and Rigorous Training for Primary Teachers (SMART-PT)

Government of Maharashtra has adopted a competency-based curriculum for primary education. Textbooks for Class I and Class IV have been developed from the academic year 1997-98. Competency-based textbooks will be introduced in all the State's primary schools to ensure universalization and quality of primary education. The project ran from April to May 1998 with the support of the Government of India and UNICEF. It aimed to equip teachers, headmasters and educational administrators with the know-how and skills for adopting the new approach used in the textbooks.

The project involved both State level training and District level training. Prior to the former, workshops and writing sessions were held, resulting in publication of three booklets. The first was entitled *Teachers Competency Enrichment*. The second - *Content Enrichment* - included articles on the introduction of new textbooks, values education and environmental education. The third was *Training Modules*, a handbook that resource persons could use to plan the content and methods of their lessons.

There were also three orientation sessions.

State level training extended over 12 days. It was aimed at those working with teachers in Primary I and II. The training included activities such as:

- stress management (physical exercise)
- academic activities
- quizzes
- preparation of educational aids, and
- cultural programmes.

At the final meeting a set of audio-cassette was released. The cassettes had been prepared by Maharashtra State Council of Educational Research and Training (MSCERT) to popularise poems from Marathi text-books that had been set to music.

District level training followed. In all 948 resource persons trained 10,122 trainees who, in turn, became resource persons at block level and trained 170,353 teachers.

SMART was evaluated by an action research project involving MSCERT, supervisory personnel like Education Officers, Deputy Education Officers and chief cluster level heads. It found that primary teachers had become more vocal, self-reliant and confident in using the competency-based textbooks. They had also been exposed to the relationship between syllabus and textbooks. Their content knowledge had also increased. Planning and preparation of educational materials had awakened them to new possibilities and MSCERT's follow-up programme further strengthened and consolidated the gains already achieved.

Contact

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LAOS

13. Basic Education (Girls) Project

Participation rates in basic education among ethnic minority children are much lower than among students from other backgrounds in Laos. Ethnic minority girls in particular have low levels of attendance at school and drop out early. This low participation serves to reinforce the current situation where relatively few women are involved in mainstream socio-economic development.

The curriculum and structure of schooling appear to be unattractive to many ethnic minority groups. The majority of ethnic minorities speak their own language, while the language of instruction in formal education is Laos. Furthermore, ethnic minority families are very poor and live by subsistence agriculture. The curriculum offers relatively little that is relevant to ethnic minority children, particularly girls.

The project commenced in 1999 and is due to end in 2003. It is funded by the Ministry of Education in cooperation with Asia Development Bank and Australia's Agency for International Development (AusAID). It aims to expand access, participation and retention rates among ethnic minority children in basic education, particularly girls. It will do so by phased provision of educational facilities and strengthened capacities at the central and provincial levels to plan, manage and implement school construction programmes, school management and school and community development. It also aims to improve the relevance, quality and efficiency of primary education by providing supplementary materials and a curriculum that is adapted to local needs and conditions. In-service teacher education will be provided to assist teachers to cope with multi-grade teaching, with teaching children whose first language is not Lao, and with teaching life skills of relevance to the local situation.

To encourage more ethnic minority girls to attend school, and to provide appropriate role models, the project aims to provide support for the recruitment, training and deployment of 300 ethnic minority teachers, the majority of whom will be female. It is acknowledged that this may be difficult due to cultural and social barriers affecting female participation.

The project will be implemented in six of the 18 provinces of Lao and will focus on those districts where participation rates among ethnic minorities and girls are low.

Contact

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14. Curriculum Development for Teacher Education

In 1986 the government of Lao initiated a programme of structural reforms known collectively as the New Economic Mechanism (NEC). NEC aimed to transform the centrally planned economy into a market-oriented system. In order to bring about sustained economic growth it was necessary to achieve significant improvements in education. A preliminary step to achieving this aim was to improve the quality of the teacher workforce.

The project ran from 1992 to 1998 with support from Ministry of Education, Asian Development Bank and the Government of Norway. It aimed to develop a central institution for teacher education that would provide a body of expertise and knowledge for the implementation of the needed educational reform.

The project provided international consultants and counterpart training in all aspects of teacher education. Training of a core group of Lao educators took place locally and in Thailand. These experts were housed in a single project building known as the Teacher Development Centre, located on the campus of the newly established National University of Laos.

In conjunction with international experts, Lao teacher educators developed 150 new course outlines for teacher education courses based on a more student-centred pedagogy, which was implemented also in primary and secondary schools. The student teaching process was modified to create a closer linkage between theory, methodology and practice. In view of the changed economic model being implemented, the project also supported the introduction of a major new subject area for primary school - 'Man and the Environment'. Since virtually no textbooks or teaching materials existed in teacher education, the project has assisted in the development of more than 200 textbooks, teacher manuals, training guides and reference works for teacher education for primary and secondary levels in the Lao language. This is the first major initiative in the production of Lao textbooks using computer-based production methods. As such it has set a standard for Lao language publications that is being used by other bodies.

Workshop training was provided locally for 2,800 teachers, while 375 educators received further training in Thailand.

The major risk to this project is perceived to be the ability of the Lao Ministry of Education to provide sufficient recurring funding to ensure that activities of the Teacher Development Centre continue after donor funding ends.

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15. Infusing Thinking Skills through the Teaching and Learning of Science

In Malaysia the science curriculum is based on a discovery and inquiry approach. Students are expected to be inquisitive and to develop skills in exploring their environment in pursuit of scientific knowledge. Scientific skills consist of process skills and manipulative skills. Process skills are mental processes that are closely associated with thinking skills. Acquisition of these skills is emphasized in the integrated curriculum for primary and secondary schools.

Teachers require support to develop approaches to promote thinking skills in students through the teaching and learning of science. This project of the Curriculum Development Centre, Ministry of Education, which ran between 1994 and 1999, aimed to produce such support materials for teachers.

Selected science educators, including curriculum developers, teachers, teacher educators and others, were invited to participate in panels. The panels met three times each year and brainstormed ideas for formulation of the thinking model to be adopted by the project. The panels also helped develop modules which they trialed and refined, and consolidated all the ideas and findings in a teacher guidebook.

The thinking model was trialed by panel members in their respective schools with positive outcomes. Other teachers have indicated that the guidebook serves to provide a clearer and better model of how to develop students' thinking ability, and has assisted them to promote thoughtful learning among their students.

Contact

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16. Improving the Method of Teaching and Learning of Mathematics and Science

Students in secondary technical schools in Malaysia have little interest and low achievement in mathematics and science. This project, which is being undertaken by the Technical Education Department (TED) of the Ministry of Education, with financial support from Asian Development

Bank, commenced in 33 pilot schools in 1997. It aims to improve the teaching and learning of mathematics and science through curriculum and instructional innovation adopting a 'contextual learning' approach. Contextual learning involves using examples from everyday experiences in personal, social and occupational life and providing concrete hands-on applications of the materials to be learned.

Teachers and officers from TED were trained in the contextual approach in Texas, USA. They prepared teacher guides and a modularised student text to guide teachers in implementing the contextual approach. The subjects targeted in the initial modules in 1997 were mathematics, physics, chemistry and biology, but it is intended to develop modules for all subjects by 1999. Full implementation at secondary technical schools will be in 2000.

Preliminary results from piloting show that students improve their understanding of the subject content of mathematics and science, and seem to derive greater enjoyment from their studies.

Contact

Director, Technical Education Department, Ministry of Education, Level 3, Block F, Damansara Town Centre, 50604 Kuala Lumpur, Malaysia, Tel: 603-255-8655, Fax: 603-255-1170.

17. Innovation of Pedagogy in Pre-service Teacher Education

This Malaysian project takes the view that innovation in pedagogy aims to generate and to develop the creativity of teacher educators and student teachers. Innovative teaching and learning strategies can encourage self-directed, self-paced and self-accessed learning and empower student teachers to take responsibility for optimising their own learning. It can inculcate a culture of lifelong education. Such innovation provides opportunities to explore the various possibilities for making teaching and learning enjoyable and more meaningful for learners. It also creates opportunities for teacher educators to work on a collaborative and cooperative basis.

The project began in 1995. It is under the direction of the Teacher Training Colleges and Curriculum Unit of the Teacher Education Division of the Ministry of Education, Malaysia. It is located in teacher training colleges and aims to:

- encourage innovative practices by teacher educators and student teachers

- produce a variety of teaching and learning techniques
- encourage teacher educators and student teachers to try out creative and innovative ideas in the use of multimedia
- produce teaching and learning materials that focus on the use of multimedia technology, and
- encourage collaboration between teacher training colleges and schools in the area of teaching and learning.

Teacher training colleges were required to produce lesson plans for each subject with support materials in the form of audio, video or CD-ROM. These focused on the use of multimedia technology and the teaching of higher-order thinking skills. The use of the Internet and the development of Home Pages was also encouraged. Materials was produced in the form of learning packages and computer software with associated books and reference materials, including teacher guides.

Teacher educators have been able to employ various approaches for infusing higher order thinking skills in school subjects. The use of multimedia technology for teaching and learning has improved. The project has created a meaningful network between teacher training colleges and schools for cooperative development of teaching and learning materials.

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18. Invention Curriculum Project

'Living Skills' is a compulsory subject for primary and lower secondary students in Malaysia. The 'inventive curriculum' is designed as a component of this subject. At upper secondary 'inventive curriculum' is offered as a technology elective subject.

The Invention Curriculum Project of the Curriculum Development Centre, Ministry of Education, was piloted in 14 selected schools across Malaysia in 1995. Since 1996 it has been expanded to all primary and lower secondary schools, and to 160 upper secondary schools. The aim is to include all schools in due course. It will enable students to be:

- creative thinkers, innovative and inventive
- capable of creating an invention that is beneficial to the nation
- sensitive to the surrounding problems and current technology

- interested in the field of entrepreneurship
- able to practise the characteristics of entrepreneurs, and
- moral.

To support implementation, the Curriculum Development Centre trains resource teachers at the national level, and these in turn conduct courses for other teachers at state level. Enrichment courses are also provided from time to time to consolidate and further upgrade the skills of teachers. These courses are also attended by officers from the various Education Divisions and State Education Departments. Curriculum and support materials have also been developed with the assistance of experts from universities and relevant organizations, as well as experienced teachers.

At upper secondary level a launching grant is provided during the first year of implementation for the purchase of material and equipment. In addition, an annual per-capita grant is provided.

The project enables students to gain experience of translating their creative ideas into action by producing artifacts to overcome certain identified problems. They also master a variety of technical skills, including use of computer-aided design software. Students' individual products and folio presentation of their work serve as an evaluation of their learning.

The project is being developed through attachment programmes of students to local industries. These programmes aim to achieve greater relevancy and to strengthen learning by exposing students to current technological concepts and practices, real problem-solving situations and realistic entrepreneurial practice. This will facilitate the link between learning gained in school and experience in industrial settings.

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19. Research and Development on Teaching and Learning of Difficult Concepts in Science

In 1992 Malaysia's Educational Planning and Research Division of the Ministry of Education identified the 'molar' concept in chemistry as one of the most difficult to teach and to learn.

The purpose of this project was to identify the specific components of the molar concept that were difficult for teachers to teach and students to

learn, and to develop materials that would make teaching and learning easier. The project was undertaken by the Ministry of Education's Curriculum Development Centre (CDC) between 1993 and 1996.

In 1993 a small group of chemistry teachers and chemistry experts were chosen to work with staff from CDC. They developed, pre-tested and refined instruments before trialing them in a sample of schools. The instruments, revised in the light of the trial, were then further tested before being published by CDC through a private publisher.

Pre- and post-tests conducted on students using the materials indicated improvement in the learning and understanding of the molar concept.

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20. School-to-Work Programme

Malaysia's Ministry of Education introduced automatic progression to Form 4. As a result some students were found to have difficulty in following and understanding the curriculum. The Research and Evaluation Division of the Curriculum Development Centre of the Ministry of Education began the School-to-Work project in July 1998. The project is designed to develop the potential of low achieving students by supplying them with knowledge and generic skills through on-the-job training and experience in the workplace. Its objectives are to:

- enable students to follow the teaching and learning process equivalent to their academic capability
- develop students' potential and generic skills through workplace experience, and
- ensure that academically low achievers benefit from their time in school.

The programme consists of two components: teaching and learning guides, and workplace training. The guides for Forms 4 and 5 consist of selected topics in the curriculum and specifications for core and elective subjects that students must master. They aim to help weak students prepare for the Malaysian Certificate of Education and to pass the core subjects and at least two elective subjects. The guides also assist teachers to handle teaching and learning for such low achieving students.

Workplace training involves the application of knowledge and generic skills. Its objectives are to:

- give students the opportunity to obtain essential skills through workplace experience
- enable students to understand career options that are suitable to their capability and interest, and
- develop students' potential and increase their confidence and self-esteem.

Students have a number of options as to how they combine schooling and workplace experience. They can attend a training centre where both schooling and training are provided, or they can participate in training on Saturdays, or after school hours. Training is provided in the areas of services, agriculture, building construction, and woodwork or handicraft.

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21. The Smart School

The *Smart School* is one of the seven flagship projects that constitute Malaysia's Multimedia Super Corridor (MSC) project. The *Smart School* is a learning institution that has been systematically re-invented in terms of teacher-learning processes and school management in order to prepare children for the information age. As such it moves away from memory-based learning to a system that stimulates creative thinking and caters to individual abilities and learning styles. It will enable teachers and school students to be in a position to take advantage of information technology, and equip them with the skills and knowledge required for other developments in Malaysia as part of the 2020 vision.

The Curriculum Development Centre of the Ministry of Education commenced the project in February 1997. It will be extended to the whole country by 2010 when all teachers will have received training. Its goals are to:

- produce a thinking and technology-literate workforce
- provide all-round development of the individual
- provide opportunities to enhance individual strengths and abilities
- increase participation of stakeholders; and,
- democratize education.

The project team comprises industry representatives, multimedia development officers and officers of the Ministry of Education.

The *Smart Schools* project has four components: curriculum, pedagogy, assessment and teaching-learning materials.

The curriculum emphasises information technology (IT) literacy, particularly the ability to use IT tools and sources to collect, analyse, process and present information.

Pedagogy will be transformed so that the trend is to greater student-centred learning as the age and maturity of children increases.

The project will use assessment that differs from traditional approaches. Assessment will occur in various forms (classroom, school-based, and centralized) to allow different demonstrations of strengths, abilities and knowledge. This system aims to allow authentic, alternative and performance assessments to be carried out. A certification process is also included as part of the project. As an individual improves, data on their performance is updated in a lifetime database using a single ID system. A 'patching' system will enable students to make improvements on weaknesses, so that certification becomes a 'living' process.

Teaching-learning materials will be acquired from a wide range of sources and extend beyond those available in a school. In addition to libraries, businesses, homes and government departments, other sources include the educational net, classified directories and the Internet. Conventional media will have a role in the project schools and will be used in an integrated manner with high technology media.

Teacher training will be a crucial aspect of the project. A mix of intensive training and counseling will be used to help teachers adapt to the new environment.

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22. Condensed Education Programme

The population of the Maldives is spread thinly over many different islands. Many schools on the small atolls do not have the facilities or the trained teachers to teach all grades up to grade 7, which is the pre-requisite for admission to further education and training. Thus many learners are disadvantaged. To overcome this problem a 'condensed' curriculum has been developed so that students can achieve grade 7 levels of learning and competencies in a period of time shorter than seven years. The project, which began in 1984, is undertaken by the Non-Formal Education Centre, in cooperation with UNICEF.

The first task was for School Principals working in the Atoll Education Centres (AEC) to develop textbooks that enabled the curriculum to be completed in only three years. Stipends were provided to children whose atoll did not house an AEC so that they could benefit from the programme. The project has been successful in attracting students, including many who had dropped out of formal schooling, thus improving the manpower situation in Maldives.

Contact

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23. Subject Teacher Committees

The number of secondary schools and students across the Maldives archipelago has expanded rapidly since the introduction of a unified national education system in the early 1990s. The expansion led to employment of more teachers, including expatriates. Because of geography, teachers had few opportunities to meet together and share their knowledge. They were largely dependent for resources upon class textbooks, and tended to dictate notes to their students for use in examinations. This tendency was exacerbated because their students were weak in English, the medium of instruction.

Supervision of teachers was undertaken through external supervision committees set up by the Ministry of Education. These committees comprised educators experienced in supervision, who received feedback and information related to the teaching-learning process.

In an attempt to improve the quality of teaching and learning the Subject Teacher Committees (STC) Project was set up by the Ministry of Education in 1991. The task of STCs was to prepare logical and sequenced teaching schemes for each of the 13 subjects of grades 8 through 10 of the secondary curriculum. The course is based on the University of London's General Certificate of Education Ordinary Level Examination syllabus. In addition STCs were established for the two Senior Secondary Certificate (SSC) subjects - Islam and Dhivehi. STCs organised workshops and seminars for themselves from time-to-time, focussing on such topics as curriculum development, teaching skills, monitoring and evaluation practices, and learning styles. These workshops also served as a forum for an exchange of teacher experiences. Each STC was responsible for development of teaching schemes that consisted of 9-term grids.

STCs have a convenor and secretary who hold the post for one year. They are senior, qualified, competent teachers accepted by their colleagues as master teachers. No payment is made for their work, but a certificate is presented to acknowledge their contribution. STCs meet at least once per term.

STCs constitute a self-supporting and in-built mechanism for ongoing in-service teacher training. The teaching schemes that have been field-tested have provided teachers with a clearer direction for their work, and the workshops have helped to foster a spirit of collegiality among teachers.

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MYANMAR

24. All Children in School

A 1990 survey in Myanmar indicated that almost 40 per cent of all school-age children do not enrol in basic education. Interviews with parents suggested that poverty, and an inability to pay for school expenses, were the major reasons for non-enrolment, and a major cause of school drop-out. School principals and teachers focus their attention on those in attendance, so that little effort is made to encourage greater participation. Other factors affecting outcomes are poor quality teaching materials, over-crowded facilities, a lack of basic learning materials, and

ineffective teaching, since only one-third of all teachers receive pre-service teacher education.

This UNICEF project began in 1994 with the support of the Department of Basic Education, Government of Myanmar. It is working with 7,700 disadvantaged schools. It aims to accelerate the enrolment of school-age children through decentralised management of education within a cluster school arrangement (5 to 10 schools per cluster). Head teachers are trained to provide support for the cluster, supplementing the existing arrangement where one inspector is responsible for up to 100 schools.

Teacher training comprises an initial two-week training course at the zone level (a single township has approximately five zones), focusing on effective teaching and learning methods in multiple grade classrooms, assessment of learning progress, and teaching of language, mathematics, basic nutrition and health. Subsequently two brief quarterly refresher-training sessions are provided at the cluster level with an emphasis on student-centred techniques. Continuous assessment has been introduced in place of traditional end-of-year examinations, and teachers use a variety of methods to track the learning progress of individual students.

Community-based Non-Government Organizations – Educational Development Associations – have been established in townships. They support training for Parent-teacher Associations, assist in the collection of baseline data, and help raise community awareness of major issues in basic education. Many PTAs assist in these activities and conduct advocacy programmes as well as fund-raising. These efforts have been reflected in enrolment targets being achieved in almost two-thirds of project schools, although accurate baseline data is difficult to collect since the last census was conducted in 1983 and the country has a weak birth registration system.

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25. Early Childhood Development for Campus Teachers

Many Nepalese schools, particularly in the private sector, offer classes for pre-school age children. The large majority of these classes place an emphasis upon reading, writing and arithmetic and other academic activities, with little time devoted to child development activities and to games.

A survey by the Faculty of Education, Tribhuvan University, Katmandu, revealed that many teachers do not fully understand the concept of early childhood development, and view all schooling as an exercise in academic development. In addition many parents view school only as a place for learning and do not understand the need for other activities. Parents believed that young children should be studying at pre-school and that homework should be a component of this.

As pre-school education becomes more popular in Nepal there is a need to provide formal training for teachers. Such training is to be implemented as a strand in the Bachelor of Education programme offered at Tribhuvan University in 1998.

The project, which was undertaken in 1998 by the Faculty of Education, Tribhuvan University, supported by UNICEF and the Embassy of Israel, included a workshop and follow-up activities involving 14 teacher educators and teachers from both the public and private sectors.

The workshop aimed to provide staff of the Faculty of Education with a broad view of early childhood education. International experts from Israel provided assistance. The content included parent education using the Gordon model. A major purpose was to provide participants with an insight into the nature of the development process and to develop materials for the new programme of training for pre-primary teachers. The new curriculum included a balance of reading, games, creativity and enjoyable physical activities.

Contact

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26. Secondary Education Development Project

The majority of teachers in higher secondary schools in Nepal work part-time. Many are staff of Tribhuvan University and have had no training in pedagogy. Most have a background in pure science, pure mathematics or English literature.

This project has been undertaken from 1997 by the Faculty of Education, Tribhuvan University, in association with the Ministry of Education. It aims to develop in-service training for these teachers, particularly in the areas of professional education and pedagogy. A ten month postgraduate diploma course was developed by staff of Tribhuvan University's Faculty of Education. Its three components comprised: Foundations of Education, Specialisation and Practicum. The focus of the Specialization component was curriculum development and evaluation, and pedagogical strategies specific to the different subject areas. The course was taught full-time by 16 senior, experienced teacher educators from the Faculty of Education. A participatory approach was adopted in its delivery.

A special selection board was established to ensure that well qualified and experienced teachers were admitted. The board comprised faculty staff, subject experts and representatives from the Higher Secondary Education Council. Applicants had to meet several criteria for admission including:

- a minimum qualification of a Masters degree
- evidence of sound knowledge of the content area of their specialist subject
- evidence of current employment as a teacher in a higher secondary school in Nepal, and
- indication of willingness to sign a bond that they would complete the 10 month course.

The course was taken by 69 teachers - 30 in science, 25 in mathematics and 14 in English. During the first semester four teachers dropped out. Fifty-eight teachers passed the final examinations.

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27. Bachelor of Education (Teaching), External Delivery Option

Evidence exists that, in New Zealand, there are prospective applicants for teaching who are of high quality, and who live in geographical areas that are not served by teacher education institutions. These potential applicants are, for various reasons, unable to travel to centres where teacher training is provided. Moreover, the schools in the areas in which they live are traditionally hard to staff.

The External Delivery Option (EDO) was developed at Massey University College of Education, Palmerston North, in 1997 to provide a route into primary teaching for people in the above situation. The first cohort of students completed the programme in November 1999. EDO is a full-time programme of study. Students communicate with one another and with lecturers through a web site on the World Wide Web. Within this site discussion, small group work and personal interaction take place. Print material supports the online teaching and discussion. For teaching practice students are placed in their local areas. Students must participate in class work and meet all the assessment requirements similar to on-campus students.

An important issue is comparability with the on-campus programme. The amount of teaching time and lecturer involvement in EDO is comparable. All papers include online activities developed by lecturers to facilitate interaction. The authors claim that EDO has matched the on-campus option in terms of quality as well as content. It has also matched the relative impact of teaching experience (and working with an Associate Teacher) with equivalent emphasis on reflection and on teaching and learning.

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PAKISTAN

28. In-service Teacher Education through the Teacher Resource Centre

The quality of primary teachers throughout Pakistan is considered to be low, especially in rural areas, in part because there are few opportunities for them to upgrade content knowledge or pedagogical skills.

A Teachers' Resource Centre (TRC) was set up in Karachi by a group of teachers, head teachers and principals as a Not-For-Profit Organization with financial support from the Agha Khan Foundation and assistance from the Ministry of Education. The TRC is managed by a governing board. It has established partnership with a number of member schools and other organizations as a strategy for policy formulation and prioritizing its activities. Its principal aim is to provide in-service professional development support for teachers in private primary schools. The TRC has some full-time staff and also provides short-term contracts for individuals offering in-service courses.

TRC organizes workshops for all levels of the school hierarchy, but with a focus on teachers and head teachers. It also produces regular and one-off publications dedicated to improving pedagogical skills, particularly those related to emphasizing learning rather than teaching as the purpose of education.

The TRC has proved to be a cost-effective mechanism for identifying and meeting the in-service education needs of private primary school teachers in Karachi.

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29. Integrated Instructional Materials Project

Analysis of reasons for declining standards in primary education in Pakistan has pointed to deficiencies in curriculum and curriculum materials. Research results indicate a need for further integration of the primary curriculum across Grades I to III. In particular there is a need for that curriculum to be integrated into two textbooks - one for mathematics and the other for languages, Islaiyat, science and social studies.

The project began in 1992 and is undertaken by Ministry of Education. It has defined an integrated curriculum as 'one that contains all of the activities that schools are expected to promote for transmitting useful and comprehensive knowledge to the student concerning their immediate environment'. The materials were developed through team workshops, and the strategy for developing a conceptual framework was to use the story-telling dialogue method based on simple concepts of the immediate environment.

Support for implementation of the new materials comprised: teacher orientation, supplementary materials, teacher guides and student workbooks. The teacher orientation included guidelines for assessing students' skills in reading, comprehension and reflective thinking.

The results suggested that the integrated curriculum is most successful in the area of language development. Teachers also indicated a preference for textbooks developed for the integrated curriculum because of their high quality and attractiveness to students. But many teachers continued to be unable to conceptualize education in an integrated manner. Science, in particular, is still considered by many teachers to be a separate, stand-alone subject.

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30. Mobile Female Teacher Training Programme

Baluchistan is the largest province of Pakistan. It is thinly populated. Literacy rates among rural women are less than 5 per cent. As a consequence, very few women train as teachers. Hence few female

teachers are appointed. This fact serves to reinforce the stereotype that education is not relevant to girls since there are few role models. Further constraints to recruitment of females for teaching come from cultural considerations. Women are not able to stay away from their homes overnight, and it is not possible to train female teachers by appointing male teacher trainers. Thus traditional forms of teacher training will not increase the number of female trainees enrolling in courses.

The Mobile Female Teacher Training programme began in 1992 with the objective of increasing the number of trained and certificated female primary school teachers. It is a Ministry of Education project supported by USAID.

The project operates through a Non-Government Organization (NGO) that was established to act as the implementing agency because of suspicion of government activities by many rural communities. It was able to take advantage of the presence of learning coordinators appointed to the province by a World Bank Primary Education Project. Each coordinator was responsible for 15 schools. Each village established a Village Education Committee (VEC) that provided land and a building that could be used as a school. The village was also required to ensure the security of the teacher. Once established a specially designed 3 months teacher training programme was provided to trainees by a group of mobile trainers who travel to each of the participating villages. There is close collaboration between the trainers, the NGO and the VEC.

By December 1995 some 750 villages had been involved in the project and 230 female teachers had been trained, certificated and appointed to their local schools. However the quality of recruits is a major concern since girls are selected from villages without any regard to their competitive merit or capacity to teach.

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31. Multi-grade Environment Project

Multi-grade teaching is practised in primary schools in Pakistan, but there is a need to further improve the skills and pedagogy of the country's 350,000 teachers. This project, which began in 1999, is being undertaken by the Primary and Non-Formal Wing of the Ministry of Education, in association with UNESCO. It has used a cascade model of training to provide in-service training for all these teachers.

Each province in Pakistan nominated four learning coordinators to attend a two-day workshop organized and led by staff from the Federal Directorate of Education and the Allama Iqbal Open University. Each learning coordinator was informed that they would be responsible for training of teachers from 10 to 20 schools. The project provided teachers from multi-grade schools with training in self-learning strategies and quality improvement. In addition teachers learned strategies for increasing contact time with students.

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32. Multi-grade Teaching Project

There are more than 3000 teachers working in primary schools of the District of Islamabad, Pakistan. There is no regular and systematic mechanism for their in-service training. A baseline survey indicated an urgent need for such training among teachers of multi-grade schools, particularly concerning strategies for mobilizing community participation. Lack of community involvement stems from the perception of different roles and responsibilities. Villages accept responsibility for providing land and for constructing the school, but see teacher training as the responsibility of government.

This project, which began in 1993, is administered by the Federal Directorate of Education, Ministry of Education, and is supported by UNICEF. It aims to develop in-service education to improve teacher competency and to strengthen links with school communities. Two multi-grade teaching workshops were conducted by the Adult Basic Education Society in collaboration with UNICEF. An outcome of the first workshop was the development of a model activity-based classroom in the school of each participant (teachers from 25 existing and 10 new multi-grade schools). These model classrooms were monitored by project staff and specific needs were identified which served as the basis for the second workshop. An impact evaluation by UNICEF and a team from Quid-e-Azam University found a shift to group work among all the multi-grade teachers participating. Most classrooms were brightly decorated, seating arrangements were varied and learning activities more common. In many classrooms teachers were no longer reading to the class from a textbook but using teaching aids such as charts, pictures, models and work cards. At the same time many teachers reported that

their crowded and cramped classrooms made the introduction of activity-based learning impractical, if not impossible. The new method of teaching was also perceived to be slower than traditional methods, and the lengthy syllabus prescribed was incompatible with project objectives.

Village Education Committees were also established for each project school. Their responsibilities included increasing enrolments, generating resources and assisting teachers in the efficient and effective management and functioning of the school.

The project produced a fortnightly newsletter entitled *HAMARIDUNYA*, which contained project information, and news and information about local areas and schools. Its role was to encourage all parties to focus on the status of education.

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33. Punjab Middle Schooling Project

The Punjab Middle Schooling project in Punjab province, Pakistan, is funded to USD$100 million by a World Bank loan, and has a grant from UK of 4.5 million pounds sterling. It began in January 1994 and will end in 2000, although a one-year extension is possible.

The project aims to promote access to education through building 300 new schools and rehabilitating 2,100 existing ones, and to improve the quality of education through institutional capacity building, teacher and head teacher training and the production of educational materials. A further aim is to promote equity - gender, ethnic and religious, rural and urban. It operates through such Ministry of Education agencies as the Directorate of Staff Development (DSD) and the Curriculum Research and Development Centre (CRDC). The project is to be seen in the context of the overarching Social Action Programme II, which coordinates initiatives in health, population, education, water supply and sanitation.

The project is on track to fulfil its material objectives. A comprehensive training programme for teachers of mathematics, science and English, and for head teachers, is being provided by DSD, and teacher self-support materials are being developed, targeted at areas of need identified by teachers. At CRDC a Test Development Centre has been established to improve techniques in testing and assessment, especially item banks of objective tests. Working in partnership with local publishers 132 fiction and non-fiction supplementary readers have been developed and

distributed. The project's book design unit prepares camera-ready copy of existing local texts, texts generated locally through literary competitions, and some titles licensed from international publishers. All materials, including test items and training materials, are reviewed for bias. The texts are provided free to schools on condition that staff attend training provided by CRDC staff. The social development teams are also involved in supporting community-based school management committees and promoting networking and cooperation between Non-Government Organizations working within the Punjab.

Gross enrolment in Grades VI-VIII has risen by just under 4 per cent for boys, and 11 per cent for girls during the project period, while the number of female teachers has increased by 18 per cent over the period 1995/6 to 1997/8.

A formative evaluation system is in place and addressing the developments supported by the project; summative evaluation will be undertaken. The evaluation system incorporates: joint donor monitoring, stakeholder review and evaluation by contracted third parties. The effectiveness of the project depends on links between district education officers and schools, and some weaknesses have occurred, resulting in reduced levels of training attendance. In some instances, too, the combination of cultural constraints and inadequate female hostel accommodation has reduced female training attendance. Distribution of supplementary readers to less accessible schools may also be at risk once the project ends and funds are allocated to school management committees.

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34. Secondary School Certificate Education Project

The low educational status of women in Pakistan has led to much effort being directed towards facilitating participation of girls at primary level. But the problem is even more acute at post-primary level. In many cases the roles and responsibilities of girls and women make it difficult for them to attend traditional forms of post-primary education. Thus there is a need to develop alternative and innovative means for their participation.

This project, which ran between 1986 and 1996, was undertaken by the Institute of Mass Education of the Allama Iqbal Open University in cooperation with the Ministry of Women's Development, and the Ministry of Education, with financial support from the Government of the Netherlands. It aimed to diversify the educational opportunities for girls and women at secondary level, and to provide a curriculum that offered functional and skills-oriented courses that are relevant for rural women.

The national secondary curriculum provided the basis for the development of a special course, but with course content selected according to the needs of the students. Course materials, written in simple Urdu on a self-study basis, are designed and written to suit the daily life needs of rural women. Texts are highly illustrative and are supported by audio-visual materials, workbooks, practical kits and self-assessment questions. Course content is activity-based and special care has been taken that students can use indigenous materials.

The study materials are sent to the student's home. Students are required to attend tutorials for one hour per week for each course that they are studying. Specially trained part-time tutors are appointed for groups of ten students, and tutorials are held at a formal school.

A student support system has also been developed and implemented. Guidance and counseling is provided to students through face-to-face contact, visits to study centres and regular correspondence. Special on-going training is provided for field coordinators who are responsible for counseling.

The project has been accessed by an average of 8,000 women per year, and some 1,500 have completed to certificate level.

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PHILIPPINES

35. Continuing Science Education for Teachers via Television (CONSTEL)

The Philippines has many areas, such as small islands and mountains, that are difficult to access. In such regions it is consequently a problem to deliver in-service education for upgrading teachers' content knowledge and skills. Science teachers who, with teachers of mathematics, are regarded as priority for general upgrading, require practical training that cannot be provided through printed materials. Consequently it was necessary to devise a means to ensure that teachers of these subjects had the appropriate levels of knowledge and practical skills.

High level discussion between politicians, academics, education officials and the private sector identified television as the most suitable and feasible medium to fast-track the training and upgrading of science teachers. The University of the Philippines, in conjunction with the Department of Education, Culture and Sports (DECS) and People's Television Network Inc (PTN), developed a proposal to implement a television-based training programme and this was supported with government funding.

The Continuing Science Education for Teachers via Television (CONSTEL) project commenced in 1995, and involves the Bureau of Elementary Education (BEE), the Bureau of Secondary Education (BSE) and PTN.

A series of workshops was held during which teacher-hosts were auditioned, selected and trained on the production process. Three television courses were developed: Science Made Easy, Chemistry in Action, and Physics in Everyday Life. Each course comprised 40 episodes - 120 television lessons in all - each of which was pre-viewed and evaluated by the CONSTEL steering committee, project consultants, subject area specialists, technical writers and teacher-hosts. Episodes were also piloted with a sample of teachers.

The television lessons are shown on Saturday morning on national PTN. Each runs for 90 minutes. Replays are shown on three afternoons during the following week. The television lessons have also been videotaped

and distributed to the 200 Division Leader Schools and the 200 Elementary Lead Schools of DECS. Supporting print materials have also been produced.

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36. Effective and Affordable Secondary Education (EASE)

In Philippines students who are disadvantaged by family poverty are those who most frequently drop out from secondary school. Low achieving students are especially susceptible, despite attempts to provide support.

The Effective and Affordable Secondary Education (EASE) project of the Bureau of Secondary Education, Department of Education, Culture and Sports, began in school year 1997-98 and is scheduled to end in school year 2002-03. It aims to design and develop an alternative learning system for students in socio-economic, geographical and physical circumstances that hinder their completion of secondary school.

The target clientele of EASE is students who wish to complete secondary school but who cannot attend classes on a regular basis due to economic and social problems. A formal contract is made between the student's parents and the school principal to cover the study period. Special modules are provided. Learning takes place at home or in the workplace, with the help of friends, neighbours and family members. Teachers make home visits to provide assistance, and to monitor and assess the learning process.

The project was trialed in schools with high drop-out rates that had a strong guidance and counseling programme. Of the 214 students who enrolled, 189 returned to regular mainstream study and completed the full first year.

Modules are being developed for a second trial with students from the second and third years of secondary school.

While EASE makes secondary education more accessible to students in disadvantaged or special situations, it also caters for those who find the conventional learning system too slow and who wish to study at their

own pace. The home visits add to teacher workload and mean that additional resources are required.

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37. Indigenization and Localization of the Curriculum

In Philippines the Bureau of Secondary Education (BSE) of the Department of Education, Culture and Sports proposes to decentralize the formulation and development of certain parts of the curriculum in order to foster national cohesiveness, and to respond to needs of different regions and ethnic groups.

The Indigenization and Localization of the Curriculum Project of BSE began in October 1998 and extends to 2004. The project aims to make the curriculum responsive to the needs of people in various locations of the country by accommodating, accepting and studying local, national and international facts, concepts and theories against the broad background of different cultures and sub-cultures.

The project will hold a national seminar and workshop. Participants at the workshop will include teachers, academics, education specialists and representatives from indigenous communities. The means to make the local culture an integral part of the curriculum will be through the Philippines Secondary School Learning Competencies concept for indigenizing the content, strategies and instructional materials for a locally developed and culturally sensitive curriculum. The outcome of the workshop will be prototype indigenous curriculum materials that will then be used as models for regional offices to use in implementing the programme.

The project will result in a culturally relevant curriculum that is representative of the local people and their locality. It will also result in instructional empowerment of secondary school principals. Decentralization of curriculum development will also support greater use of resource centres among Divisional Leader Schools. A further impact will be increased research into indigenous knowledge, materials and systems. One risk the project faces is the possible adjustments in the allocation of time to different subject areas. There will also be a need for more indigenous focused instructional materials and training of teachers to teach the new curriculum.

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38. Pupil Learning Enhancement Programme

Numerous reviews of the education sector of the Philippines have identified a continuing problem of insufficient access to schooling. To address this issue, the Department of Education, Culture and Sports (DECS) has initiated a programme whereby all incomplete schools are to introduce multi-grade classes. As part of the United Nations Development Programme's support for this initiative, the Bureau of Elementary Education (BEE) has been asked to provide a programme to strengthen community support for multi-grade schools in remote regions.

The project extends from 1996 to 1999. It aims to strengthen the capacity and performance of multi-grade schools and their teachers through expanded community involvement, and to promote an understanding of the roles and responsibilities of the teacher and the community. It was first piloted in four multi-grade schools and later expanded to seven similar schools across seven divisions.

With the help of a community development specialist BEE provided a 5-day workshop focusing on the development of a community support scheme. The workshop identified skills and knowledge required by parents for community support through team building, value formation, mobilization of local resources and problem-solving.

To promote greater parental involvement in schools the project trained parents as para-teachers, and promoted joint parent-teacher planning and monitoring of school performance. Specific roles and responsibilities for teachers and for community members were identified, and strategies described to implement these. A community field worker was provided at each project site to reinforce the outcomes of the workshop.

The project has strengthened and mobilized parent-teacher associations, led to higher levels of volunteer activities by parents, involved parents as para-teachers, secured greater involvement of parents in the activities of the schools, and brought about greater interaction between teachers and parents. However it has been noted that some community members lack commitment, some parents have negative attitudes to education, and some families move away from the community.

District officials are investigating the possibility of expanding the project to other multi-grade schools.

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39. Science and Mathematics Education Manpower Development Project (SMEMDP)

Identifying a core group of teacher trainers was perceived to be a need if the quality of teaching of science and mathematics at both primary and secondary levels in the Philippines was to be improved. Such trainers would have responsibility to upgrade teachers' theoretical and practical knowledge across the country.

Institute for Science and Mathematics Education (ISMED), University of the Philippines, set up the Science and Mathematics Education Manpower Development Project (SMEMDP) in 1994, with technical assistance from the Government of Japan, to establish an Institute able to undertake this in-service training role. In addition the proposed Institute was given responsibility for planning and managing teacher training courses that were focused on laboratory experiments and other practical work, and for developing instructional methods and materials.

Japanese experts visited the Science Teacher Training Centre at University of the Philippines, and Centre staff were also trained in Japan. Equipment and materials necessary for the transfer of technology skills were also provided. In addition the project was funded to provide middle level training programmes for teacher educators and teacher leaders at different Regional Science Teaching Centres. These trained staff would then provide training to other teachers and trainers across the country on a cascade model of training.

The project has resulted in an enhanced instructional capability among teacher educators at ISMED, particularly for laboratory and other practical activities. The receipt of science and mathematics instructional equipment has also facilitated the further development of teacher training programmes and instructional methods and materials. A further impact has been the higher capability among staff in ISMED in planning and managing teacher training courses in the specific subject areas.

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40. Thinking Skills Development for Maximized Cognitive Performance Programme (TSD-MCP)

This Philippines project reflects the findings of research studies that have consistently demonstrated poor performance by secondary school students on tests that measure critical thinking skills. Teachers require support through specialized training and resource materials to improve student performance on such tests.

The 'Thinking Skills Development for Maximised Cognitive Performance Programme' (TSD-MCP) of the Bureau of Secondary Education, Department of Education, Culture and Sports, aimed to train teachers to teach thinking skills and skills transfer, with the objective of improving both the cognitive and academic performance of secondary school students. The project began in 1994 and finished in 1998. It worked with teachers of first year students in 6 selected public and private secondary schools.

The programme developed 30 teacher-aided structured lessons for each of the 17 critical thinking skills to be used in pilot testing with students from the six schools. Two instructional schemes were evaluated on a pre- and post-test design. The first scheme used a direct, separate subject approach with the students being taught how to develop their critical thinking skills through structured lessons using De Bono's perceptual tools. The second scheme used an integrated approach, with the teacher developing critical thinking skills by using thinking tools in lessons in an unstructured, informal manner.

A 10-day training programme was conducted for teachers, principals, and school administrators. Training focused on the use of the direct and integrated approaches and on the data-gathering instruments. Results demonstrated that the programme was effective in improving the critical thinking skills of students, with the direct and deliberate teaching approach proving to be more effective than the integrated approach.

The project concluded that teachers require a significant amount of training to prepare them for teaching critical thinking as a specific subject, and that such a subject would add to an already crowded curriculum.

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THAILAND

41. Basic Education and Lifelong Education for Empowering Disadvantaged Population in Rural Areas

The Thailand-United Nations Collaborative Action Plan (Thai-UNCAP) has been developed to address the issues and goals of the Thailand Eighth National Development Plan (1997-2001). The Plan encourages decentralization and people's participation, empowerment and promotion of partnership at the local level. Tambon (Sub-district) administrative organizations (TAO) play key roles in a bottom-up strategy to develop local communities. Village headmen and persons with special knowledge, skills and understanding - **local wisdom** - are members of TAOs, each of which has its own budget for community development. The economic crisis has resulted in many workers returning to their villages. They need urgently to develop skills that will enable them to earn a living. APPEAL - UNESCO's Asia-Pacific Programme of Education for All - has identified Community Learning Centres (CLCs), and income-generating projects, as means to promote post-literacy and lifelong learning in countries in Asia.

Thai-UNCAP began in March 1998 and will end formally in December 1999. The project is organizing basic education and lifelong learning for empowering people and improving their quality of life in five rural provinces - Payao, Maha, Sarakham, Petchaburi and Pattani - and in the Yannawa community in Bangkok. The project is implemented by the Payao Provincial Non-Formal Education Centre and Provincial Primary Education Centre, with funding through UNESCO's Principal Regional Office for Asia and the Pacific (PROAP) donated by Osaka University, Japan. A new concept of **School for Life** was initiated by the project. Schools are no longer solely the responsibility of teachers, but also of the community: the school must serve as a focal point for community development.

Under the project 70 villages have established Community Learning Centres (CLCs) to serve as a focal point for community activities. Some are set up within the compound of temples, others in community meeting

halls or in the buildings of primary schools that have closed due to lack of enrolments. Villagers have contributed construction materials to build CLCs and to develop their facilities, constructing pathways, digging fish-ponds and improving the soil for cultivation. Parents are also involved in school management, and in designing activities for a local school curriculum. All main governmental agencies working in the villages i.e. Non-Formal Education, Formal Education, Interior Ministry, Agriculture and Livestock Ministry, and Industry are working together to facilitate and advise TAO. Government agencies also work with Non-Government Organizations in supporting non-formal and school activities such as winning garment orders, school camping to raise funds for HIV/AIDS-related activities and values education, and provision of student scholarships. Both CLCs and primary schools invite persons with 'local wisdom' to train students, youth and adults in the community in various skills in accordance with the requirements of the learners and the resources available.

The project has had considerable impact. Some primary schools provide education for all members of the community. Others are developing small enterprises through using surplus water vegetation as fertilizer, which can be sold. Both CLCs and primary schools use waste compound for integrated farming, fish-pond and chicken rearing, vegetable and fruit growing. They have also established Community Market Centres to market produce and artifacts. Some CLCs function as community factories: former workers in the garment industry, for example, may find that they are able to use their skills again, both in production and in training.

This project has to contend with turnover of key staff. There is also the danger of overselling the project, so that other goals for primary education, for example, may be lost sight of.

Contact

Provincial Non-Formal Education Centre, Payao and Provincial Primary Education Centre, Payao, Thailand.

42. Youth's Participation in Community Development

This project has been ongoing since 1997. It is managed by the Office of the National Education Commission, Thailand, with support from UNICEF and the Thai Art and Cultural Institute for Development. It aims to provide Thai school students with meaningful social involvement in their community, as a basis for exercising their rights to have their

views heard and considered. It worked initially to assist 400 students from pre-primary, primary and secondary levels to serve their local communities, and to train 50 teachers from Khon Kaen province in the identification and organization of relevant activities. Subsequently it was extended to 10 provinces, and a further 11 provinces will be involved in 1999, including a total of 80,000 students, with nation-wide implementation following an evaluation.

At each project site a series of one-day workshops were held, separately for students and for teachers, although teachers were observers at the student workshops. Experiential and participatory learning methods were used. Student workshops had modules on community study, public performance, questioning and analysis and team building. Teacher workshop modules included story-telling, creative movement, critical thinking, creativity development, experiential learning and assessment techniques.

Students were encouraged to identify the major social problems of their communities and to collect background information by asking questions and interviewing key community members. Following brainstorming and further discussion, students expressed their findings and suggestions through an evening theatrical performance with such themes as drug addiction, labour migration, care of the elderly, and environmental degradation.

Reference

Laeka, P (1998), *Youth's participation in community development: A case study from the Thai school*. Paper presented to Secondary Education and Youth at the Crossroads Conference, ACEID, Bangkok.

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Asia-Pacific Programme of Educational Innovation for Development (APEID)

The Asia-Pacific Programme of Educational Innovation for Development promotes regional co-operation by forming a network of institutions, called Associated Centres, across the region to facilitate educational innovation and, thus, assist Member States build national capacities according to the self-perceived needs of the countries themselves. Associated Centres join APEID to contribute to, and benefit from, the exchange of insights, skills, expertise and experiences promoted under the programme.

National Coordinating Mechanisms within each Member State promote and facilitate the APEID programme. A Secretariat in Bangkok, the Asia-Pacific Centre of Educational Innovation for Development (ACEID) serves the network.

APEID's guiding principle and function is to encourage and foster endogenous development by promoting educational innovation. The Work Plans for APEID are jointly designed, implemented and assessed by participating member institutions.

Other important international UNESCO networks administered through the ACEID Secretariat include:

- ASPnet – Associated Schools Project
- UNEVOC – for technical and vocational education
- APNIEVE – Asia-Pacific Network for International Education and Values Education
- UNITWIN/UNESCO Chairs Programme – promotes partnerships between institutions for Higher Education

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- Disseminating information on educational innovations throughout the region through printed and electronic publications;
- Mobile Training Teams;

and the

- Annual UNESCO-ACEID International Conferences on Education held in Bangkok every December.

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